NAVAL FACILITIES ENGINEERING COMMAND

GUIDE PERFORMANCE WORK STATEMENT (GPWS)

FOR

MAINTENANCE OF

FIRE PROTECTION SYSTEMS

FEBRUARY 1993

PREPARED BY:

SOUTHERN DIVISION, NAVAL FACILITIES ENGINEERING COMMAND

CHARLESTON, SC

THIS GUIDE PERFORMANCE WORK STATEMENT HAS BEEN REVIEWED AND APPROVED BY:

_____ _____

ASSISTANT COMMANDER FOR
PUBLIC WORKS CENTERS AND DEPARTMENTS
NAVAL FACILITIES ENGINEERING COMMAND

DATE

NAVAL FACILITIES ENGINEERING COMMAND
GUIDE PERFORMANCE WORK STATEMENT FOR
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TABLE OF CONTENTS

USER FEEDBACK/COMMENT SHEET
GUIDE PERFORMANCE WORK STATEMENT FOR
MAINTENANCE OF FIRE PROTECTION SYSTEMS

This User Feedback/Comment Sheet has been provided to allow the User of the Guide Performance Work Statement (GPWS) for Maintenance of Fire Protection Systems to provide comments and recommended changes to SOUTHNAVFACENGCOM.

The success of SOUTHNAVFACENGCOM's continuing GPWS revision and improvement efforts will depend heavily upon input provided by Users at the activity level and at the NAVFACENGCOM Engineering Field Divisions. Be assured that any comments received will be reviewed in detail and incorporated into the next edition of the GPWS, if appropriate. Such comments should be provided (as a minimum) approximately six months into the initial contract term, should be as specific and detailed as possible, and should include:

- Suggested changes in format.
- Comments on the effort required to tailor the GPWS.
- Alternate clauses and approaches to describing the services to be provided.
- Adequacy of the technical specification.
- Alternate procedures and formats for displaying historical data, Schedule of Deductions, Contract Line Items, etc.
- Adequacy of the User's Guide and Quality Assurance Guide.
- Effectiveness and practicality of the suggested quality assurance plans.

COMMENTS
(Attach additional sheets, if required)

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_____

USER:_____ _____
(Activity Name) (Activity Address)

POINT OF CONTACT:_____ _____
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Mail User Feedback/Comment Sheets to:
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USER’S GUIDE

GUIDE PERFORMANCE WORK STATEMENT FOR

MAINTENANCE OF

FIRE PROTECTION SYSTEMS

USER'S GUIDE
GUIDE PERFORMANCE WORK STATEMENT FOR
MAINTENANCE OF FIRE PROTECTION SYSTEMS

TABLE OF CONTENTS

USER'S GUIDE
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MAINTENANCE OF FIRE PROTECTION SYSTEMS

I. INTRODUCTION

A. Purpose. This NAVFAC Guide Performance Work Statement (GPWS) has been written to provide assistance in preparing facilities support contracts to procure maintenance and repair services for fire protection systems. Contracts for such services may be a continuing contracting effort or conversion of services from in-house to contract performance under the Commercial Activities (CA) program. This NAVFAC GPWS may be used in either application. This GPWS Package consists of a User's Guide, guide contract sections B, C, and J in the Uniform Contract Format, and a Quality Assurance (QA) Guide.

1. NAVFAC Manual MO-327, *Facility Support Contract Quality Management Manual*, provides extensive information on the preparation of NAVFAC facilities support contracts, from guidance on acquisition planning through the entire PWS and surveillance program development process. This User's Guide is designed to supplement and to be used in conjunction with the NAVFAC MO-327 in developing a PWS for maintenance of fire protection systems. It provides specific guidance on developing and tailoring this GPWS, special items which must be considered if the specification is being written in conjunction with a CA program study, and general guidance on required pre-award actions. Additional guidance on implementing CA program requirements can be found in the Supplement to OMB Circular A-76 and in OPNAVINST 4860.7B.

2. Sections B, C, and J provide suggested formats for displaying contract line (bid) items, technical specifications which the user may tailor to site specific needs, and attachments which provide supplemental information, historical data, etc.

3. The QA guide is designed to provide the framework for development of a comprehensive contract surveillance program. The user should modify and expand upon the sample QA plans provided as the GPWS is tailored.

4. This GPWS does not establish or provide NAVFAC procurement guidance or policy. Such guidance and policy may be found in the NAVFAC P-68, *Contracting Manual*.

B. Function Definition

1. For purposes of this GPWS, maintenance of fire protection systems includes inspection, testing, maintenance, and repair of fire alarm and fire extinguishing systems for buildings and structures. The GPWS may be used in developing separate contracts for fire alarm and fire extinguishing systems, or a combination thereof. Services described in the GPWS include service call work to make minor repairs to return a system to proper operation; recurring work such as inspection, testing and maintenance; and indefinite quantity work to make certain discretionary repairs. The fire protection systems covered include:

a. Fire Alarm Systems

b. Automatic Sprinkler and Standpipe Systems, including fire pumps and fire hydrants

c. Foam Extinguishing Systems

d. Gaseous Extinguishing Systems

e. Dry and Wet Extinguishing Systems

f. Smoke Control Systems

2. The following fire protection system related services are excluded from this GPWS because they are normally performed by in-house forces, or are included in other GPWSs:

a. Maintenance of public or base water distribution systems

b. Maintenance of water tanks

c. Maintenance of fire resistant assemblies

d. Maintenance of portable fire extinguishers (may be included if activity is unable to perform maintenance)

e. Maintenance of intrusion detection systems

f. Maintenance of telephone/communications systems

3. Also excluded from this GPWS are most maintenance management functions. The assumption was made that these functions, such as controlling and scheduling of work requests, receipt of service calls, performance of control inspections, etc., would continue to be performed in-house at most activities.

4. Maintenance and repair services are limited in this GPWS to what may be accomplished under the provisions of the Service Contract Act. This restricts work performed under this GPWS to 1) those services which are clearly covered by the Service Contract Act, and 2) those services which are not clearly identifiable as service work (but not construction work subject to the Davis-Bacon Act) if they may be accomplished in less than 32 hours. This has the practical affect of limiting the size of any single repair (service call or indefinite quantity repair) to what may be accomplished in less than 32 estimated labor hours. At most activities this limit should be more than adequate to allow accomplishment of most all routine maintenance and repair requirements, and all but the most significant major repairs. For further clarification, refer to the Defense Federal Acquisition Regulation (DFAR) Supplement paragraph 222.402 or contact your NAVFACENGCOM Engineering Field Division (EFD) Contracts Department. Paragraph III.C.2 of this User’s Guide also provides further discussion of this limitation and alternate procedures which may be used.

5. Major repair, alteration, renovation, and improvement services have not been included in this GPWS, since they are typically provided by separate construction contract, and their inclusion would require the inclusion of Davis-Bacon wage determinations and related provisions.

C. Responsibilities

1. Experience has shown that the best method of developing a facilities support contract is to involve a number of activity personnel, each having a portion of the knowledge and experience required to put the entire package together. A team of experienced activity personnel should be formed and a team leader appointed. At least one member of the team must be intimately familiar with each of the following areas:

a. Must be familiar with and understand the applicable GPWS(s) and QA Guide(s).

b. Must have a working knowledge of basic contracting procedures.

c. Must have first hand knowledge of the services, and/or equipment/system operations, repairs, and maintenance to be provided by contract.

d. Must be able to identify local needs/requirements that are different from this GPWS and apply specifically to the activity.

2. The following activity personnel are suggested as members of the contract development team.

a. Team Leader. The team leader will be the individual with overall responsibility for development of the contract. This includes the development and tracking of procurement milestones; ensuring that each member of the team understands what specific tasks they are responsible for and when each must be completed; and coordinating the efforts of the individual team members so that are the many pieces of the procurement package fall neatly into place.

b. Specification Writer. The specification writer brings to the team technical knowledge of facilities management and a familiarity with specification formats. This will most likely be an engineer or engineering technician at the activity who has had at least some experience in writing facilities support contracts. The use of a planner and estimator (P&E) is also appropriate if one is experienced with writing contract specifications. The writer, regardless of who the person is, should have attended the Civil Engineer Corps Officers School (CECOS) course, Facilities Support Contracts for Functional Managers. Assistance and guidance may be requested from the geographical NAVFACENGCOM Engineering Field Division (EFD). The EFD may offer courses on PWS development, quality assurance, and other related subjects that may be of benefit to the specification writer.

c. Functional Manager/Customer. The functional manager is the technical representative of the team who is most familiar with the function to be contracted. Early in the tailoring process an activity, EFD, or Public Works Center Fire Protection Engineer or other fire protection systems functional expert must determine the total scope of the services required, develop detailed inventories of the equipment to be maintained, collect historical information on work quantities, and identify the specific needs of the activity which may differ from this GPWS. The activity Fire Chief should also be contacted, as should any appropriate customer representatives, since they may be able to identify any specific equipment maintenance needs or concerns.

d. Facilities Support Contract Manager. If there is an existing Maintenance of Fire Protection Systems contract, the Facilities Support Contract Manager (FSCM) or Quality Assurance Evaluator (QAE) should be able to provide lessons learned and other information pertinent to the new specification. The FSCM/QAE will also be responsible for preparing required Quality Assurance Plans (see Quality Assurance Guide) and for ensuring that services are specified in such a way as to be inspectable.

e. Contract Specialist. The Contract Specialist provides overall contractual guidance in the preparation of the specification and the overall solicitation. This person will work with the writer in the preparation of sections B, C, and J, and will prepare the majority of the clauses in sections E, F, G, H, I, K, L, and M of the solicitation. The contract specialist will also ensure that labor laws are properly applied, competition requirements are met, fiscal policies are adhered to, the solicitation is properly advertised, etc.

f. CA Program Manager. If the specification is being prepared under the CA program, the CA Program Manager provides overall guidance on the CA program, and will ensure that the specification is developed in conjunction with required most efficient organization and management studies.

3. The completed specification should be reviewed by customer and functional manager representatives, the activity's Fire Chief, the Engineering Division Director, and the Facilities Management Engineering Director. Consult appropriate EFD instructions to determine if EFD review/approval is required prior to solicitation.

II. GPWS DEVELOPMENT AND USER CONSIDERATIONS. This section of the User's Guide discusses certain assumptions which were made and special items that were considered during the development of the Maintenance of Fire Protection Systems GPWS, and provides general information and considerations that the user should be aware of during the tailoring process.

A. Development of the GPWS. In developing this GPWS a functional analysis as described in NAVFAC MO-327, was performed to identify each of the major subfunctions for maintenance of fire protection systems. Each of these subfunctions was carefully reviewed to determine which could realistically be contracted for. Once a final list was developed, each subfunction was further subdivided to develop basic work requirements and standards of performance. Once all of the basic work requirements were identified for each subfunction, a performance requirements summary (PRS) table was developed and the requirements were put into narrative form.

B. GPWS User Considerations. The clauses and provisions of this GPWS are arranged in the uniform contract format as required by the Federal Acquisition Regulation (FAR). The sections to which they are assigned shall not be changed.

1. This GPWS contains sections B (Supplies or Services and Prices/Costs), C (Description/Specifications/Work Statement), and J (List of Attachments) only. These sections contain information and clauses peculiar to the technical services required, while Sections D, E, F, G, H, I, K, L, and M contain contract clauses and provisions more closely related to administrative and contractual requirements. Since the latter group will generally be the same in the majority

of NAVFAC contracts, their inclusion in each GPWS would be unnecessary duplication. These clauses are included in the Uniform Contract Format Guide (UCFG) published by NAVFAC. The UCFG should be available at each of the geographical EFDs and at NAVFAC contracting offices, and should be made available to specification writers as required.

2. FAR clauses and provisions may be added or deleted as required by the FAR for specific functions, dollar limitations, bonding, small businesses, etc. They may not be altered unless specifically authorized by the FAR. Most of the clauses in sections I and L, other than those requiring tailoring (i.e. blanks to be completed), may be included by reference. All other FAR clauses and provisions shall be included in full text. Procurement offices shall make available to bidders the full text of all clauses incorporated by reference upon request.

3. Clause titles in the UCFG which include the designation "(NAVFAC)" followed by a date in parenthesis, are NAVFAC clauses which may not be altered without NAVFAC approval. All other non-FAR and non-NAVFAC clauses and provisions in the UCFG (other than those in Sections C and J) should be used substantially as shown or deleted if not applicable to the solicitation. Extensive deliverable performance requirements should not be added to these clauses, but should be included in Section C.

4. Technical Specification

a. Section C, which describes the services to be provided, should be a performance specification to the maximum extent possible. That is, over defining the Contractor's responsibilities in terms of methods or procedures should be avoided in writing the technical specifications since we hope to purchase not only the Contractor's labor, but also his/her expertise in the services to be provided and management of those services. A performance oriented specification should minimize the use of words describing "how to", but should describe work outputs required as explicitly as possible while leaving the Contractor latitude to manage his/her own work force and choose his/her own methods for accomplishing the work.

b. On the other hand, the specification must provide enough information to clearly and precisely define the magnitude (number of services we want to buy) and quality of each of the services to be provided, as well as the scope or limit of each. This is accomplished in this GPWS by specifying, in addition to the desired outputs, schedules of accomplishment and/or specific time limitations in which all services must be completed; listing mandatory operating procedures or steps that the Contractor must follow for some services; and providing historical data on the magnitude of services provided under previous contracts or by in-house forces. Such information will only slightly restrict the Contractor's latitude in managing his/her workforce, but will help ensure all bidders clearly visualize the magnitude of effort which will be required to provide the clearly defined scope of work. Typically this will result in more accurate/realistic Contractor bids, make payment deductions for unsatisfactorily performed or nonperformed work easier to calculate, and reduce the number of contract administration problems.

5. As you use this GPWS you will find in many instances there will be a "NOTE TO THE SPECIFICATION WRITER". These notes provide the user with additional information and/or advise the user to select the appropriate clause,

insert additional information, or delete the clause in its entirety. There are also many areas within the text of the GPWS where notes indicate that additional information must be provided; e.g., start times, dates, quantities, etc. These notes will always be enclosed by the symbol "!". All that is required is to replace the note with the required information.

III. TAILORING THE GPWS. The NAVFAC GPWS for Maintenance of Fire Protection Systems services is not intended to fit the requirements of a specific activity, but rather, is to serve as a model to be tailored by activities in preparing their specific PWS. The first step in tailoring a GPWS to a specific case is for the user to become intimately familiar with the GPWS and its User's Guide. The user must know what is, and is not, included in the GPWS and what was intended before any required modifications may be assessed. The PWS is the instrument that lays out the functional and technical requirements and ultimately becomes part of a contract. The User's Guide provides the user with information concerning the GPWS and provides instructions on tailoring. Users should not assume that the GPWS can be "plugged" into their application with little or no effort. A detailed analysis of the activity's requirements will be required.

A. Getting Started

1. Scope of Work. The first step in tailoring this GPWS to a specific user activity must be to determine one of the following:

a. Are the requirements currently contracted, and will this be a continuation of the contracted services, or a consolidation of several contracts? If this is the case, this GPWS may be tailored to accomplish any desired scope of work and level of performance.

b. Are the requirements to be included in the PWS subject to a CA cost comparison study under OMB Circular A-76? If this is the case, it is mandatory that the scope of work and level of performance specified be equivalent to the level of effort that can be achieved by the Most Efficient Organization (MEO) if the function is retained in-house. Additional information on tailoring of this GPWS for a CA program study is included in paragraph IV of this User's Guide.

2. Job Analysis. The next step should be a thorough review of Chapters 2 and 3 of NAVFAC MO-327. These two chapters outline how to perform a job analysis to determine the specific subfunctions to be contracted (including specific work requirements and standards of performance) and how to use the job analysis information and data collected to actually write the PWS. As the job analysis is being performed, the user should compare unique activity requirements with GPWS requirements to determine if any major changes are required, or if some of the questions being identified in the job analysis have already been answered in the GPWS. If major changes are required, the user will need to re-write the affected GPWS section. A thorough job analysis will make the actual tailoring of the GPWS and re-writing of paragraphs relatively easy since all required data will be readily available and the subfunctions to be contracted will be well defined.

3. Equipment Inventory and Condition Survey. If not already available the user should now be prepared to take an accurate inventory and perform a condition survey of the fire protection equipment to be maintained under the contract. If in-house expertise is not available this effort will need to be

obtained from the geographic EFD, separate Architect/Engineer (A/E) contract, or other source. If an A/E contract is used, ensure that the company is a qualified fire protection engineering firm that meets the requirements specified in the latest edition of Military Handbook 1008.

a. Equipment Inventory. The importance of having a complete, up-to-date, and accurate inventory cannot be overemphasized. Contractors will not be able to provide accurate bids without adequate system/equipment information, and cannot be required or expected to obtain this information during presolicitation site visits. Inaccurate and incomplete information will also lead to contract administration problems, unnecessary change orders, and claims. Inventory information should include the location, manufacturer's name, type, and other pertinent information for each system, such as that shown in Attachment J-C1.

b. Condition Survey. If fire protection systems are being routinely maintained and repaired a condition survey should not be needed since most systems should already be in proper operating order on the contract start date, with perhaps only minor repairs being required. Many times however, activities place fire protection systems maintenance at a low priority and systems are allowed to deteriorate. Including systems in a maintenance contract which are in need of numerous or major repairs is an invitation for contract administration problems, change orders, and claims; and the needed work will likely end up costing more than necessary. If systems have not been routinely maintained and repaired or the user is unsure of their condition, a detailed survey should be conducted. Only with such information may the scope of needed work be determined and intelligent decisions made as to how it should be accomplished. There are several options available to accomplish identified repair requirements and return systems to proper operating condition, including those discussed below. Since this work is not included in this GPWS, the geographic EFD should be contacted if further assistance is needed.

(1) The one time repair effort may be performed by separate construction contract with only non warranty maintenance and repair services being included in this maintenance contract. Since two Contractor's could end up being responsible for maintenance and repair of the same system, one for portions of the system under warranty and the other for all other portions, there is an excellent chance that there will be disputes and finger pointing between the two Contractors, and confusion as to which Contractor to call when a problem develops.

(2) The one time repair effort may be performed by separate construction contract, with routine maintenance and repair as separate bid items (including options to extend) in the same contract. Although this option may also result in fire protection systems maintenance at the activity being performed by two separate Contractors, at least each Contractor has total responsibility for specific systems.

(3) The one time repair effort may be included directly in the base period of this maintenance contract as a separate bid item(s). This option would almost certainly require the addition of Davis-Bacon wage rates for the base period of the contract (see User's Guide paragraph III.C.2).

B. Contract Line Items. Section B of the contract (Supplies or Services and Prices/Costs) includes contract line items for each of the services included in the contract. The specification writer and contract specialist will develop

these line items in conjunction with the technical specifications, the Schedule of Deductions, the PRS table, and other portions of the contract. The example contract line items shown in Section B of this GPWS are intended to encompass all of the services (contract requirements) to be provided in the GPWS technical specifications. Of course they must be tailored to account for the type of contract selected, contract requirements added or deleted by the user during the job analysis process, the projected start date of contract performance, and other factors including those discussed below.

1. Contract Type. A combination firm fixed-price and indefinite quantity contract is used in this GPWS because it is by far the most common type of contract for maintenance of fire protection systems. However, other contract types may be used based on mitigating circumstances. The user should solicit input from the contract specialist or the EFD Contract Department when deciding on the most appropriate contract type. All of the contract requirements in the PWS must be included in either the firm fixed-price or fixed unit price (indefinite quantity) contract line items in Section B.

2. Firm Fixed-Price Contract Requirements. Firm fixed-price contract line (bid) items are bid and payment is made for the total performance of a given contract requirement over a given period of time (usually one month). These contract requirements are either fixed in scope (time, location, frequency, quantity, etc. are known or can be accurately estimated) or adequate historical data is available to allow a reasonable estimate to be made. Because the scope of work is known, the Contractor agrees to perform a given requirement for a total price, and in essence there is one work order. The Contractor performs the work as scheduled and invoices are submitted for the services provided.

a. Examples. Examples of firm fixed-price contract requirements in this GPWS include service call work and preventive maintenance (PM) inspections. The scope of each of these services is clearly defined in the GPWS technical specifications (Section C) and supporting Attachments in Section J. Fixed-price contract requirements added by the user must have clearly defined scopes, or additional historical data will have to be added to Attachment J-C8 of the PWS so that Contractors may prepare biddable estimates of the quantity of work that will be required.

b. Firm Fixed-Price Contract Line Items. The firm fixed-price contract line items may be displayed in one of three different ways in Section B. The user should contact the contract specialist or EFD if in doubt about which procedure should be used.

(1) Section B of the GPWS illustrates the most common procedure, which is to simply require bidders to provide a single monthly price for the total performance of all the firm fixed-price work requirements in the contract. In this case the contract must also contain a Schedule of Deductions in Section E, in which the successful bidder will break down the total bid price for each of the fixed-price requirements in the PWS. See paragraph III.D of the User’s Guide for additional information on the "SCHEDULE OF DEDUCTIONS" clause.

(2) A slightly different procedure would be to include a limited number of fixed-price subline items, each of which would be broken down by a Schedule of Deductions.

(3) A third procedure would be to eliminate the Schedule of Deductions from the contract and provide a detailed Schedule of Firm Fixed-Price Work. Such a schedule would be formatted similarly to the Schedule of Deductions, and bidders would provide separate unit prices for each of the fixed-price requirements in the PWS.

3. Indefinite Quantity Contract Requirements. Indefinite quantity contract requirements are performed on an "as ordered" basis, and a fixed unit price to perform one occurrence or a given quantity of each type of work is bid. Payment for this type of work is based on the unit price bid per unit times the number of units performed. Because each Government order for indefinite quantity work is paid for separately, each and every delivery order must be inspected and accepted as being satisfactorily completed before payment may be made. Bid prices for unit priced tasks include all labor, materials, and equipment for performing a given quantity of work, such as replacing a fire hydrant. The unit prices bid are multiplied by an estimated quantity of units to be ordered during the contract term, but only for purposes of bid evaluation, since work will only be paid for as ordered and completed.

a. Maintenance and repair services added to the indefinite quantity portion of the PWS by the user must be:

- Less than 32 estimated labor hours in size and not include alterations, improvements, or modifications (new work) unless Davis-Bacon provisions have been included in the contract. See User's Guide paragraphs III.C.2 and III.C.5 for additional information.

- Have clearly defined scopes per unit. For example, if the item "replace fire pump" is added, the user must specify the type, size, and capacity of the pump in Section C, and state that the cost of any required connections and modifications to the electrical, plumbing, and other supporting systems are to be included in the unit price bid.

b. The quantities provided in the solicitation for bid evaluation must be realistic estimates of the anticipated quantities to be ordered during the contract term.

4. Separately Priced Options to Extend. In the example contract line items in Section B of this GPWS, separate prices are included only for the base period and the first option period of the contract. However, separately priced options will likely be required for each potential option period in a fire protection systems maintenance contract, since certain PM inspections are performed only during certain years (e.g. trip tests on deluge and pre-action systems are performed every 3 years). It would not be equitable for either the Government or the Contractor to extend the contract term at the same price each year when the amount of effort required varies from year to year. Separately priced options also require the user to consider the following:

a. Normally contracts for fire protection systems maintenance services may be awarded for a 12 month initial term to begin at any time during the fiscal year, and funded with funds current in the fiscal year of the award. However there are cases, such as when adequate funds are not available, when the initial term could be less than 12 months in length. For example, the initial

contract term could be six months in length, beginning on 1 April and ending on 30 September. If the initial term will be less than 12 months in length:

(1) Contract line items 0001 and 0002 in Section B will need to specify the number of months in the initial contract term and the appropriate proportionate number of units in the Schedule of Indefinite Quantity Work.

(2) Section C, the technical specifications, must clearly indicate the scope of work for the initial period since the work load can vary significantly from month to month. For example, the specification must state whether or not annual preventive maintenance inspections will be performed during an initial period that is less than 12 months.

(3) The "PERFORMANCE PERIOD OF CONTRACT" in Section F and the "BASIS FOR AWARD" in Section M must be modified accordingly. Check with the contract specialist for specific wording of these clauses and for other changes which may be required.

b. Schedules of Deductions, one for the initial (base) period and one for each of the separately priced 12 month option periods, must be included in the contract. Of course the items of work and number of units in the Schedules of Deductions must agree with the firm fixed-price contract line items in Section B and the scopes of work defined in Section C. Paragraph III.D of this User's Guide provides more in depth information on the development of Schedules of Deductions.

5. Other Clauses. Specific clauses included in Section B differ from NAVFAC EFD to EFD. The user must contact the activity's geographical EFD to identify the specific clauses, if any, which may be required.

C. Technical Specifications. The technical specifications, Section C, are the single most important part of a PWS. Within this section the user should add or modify the paragraphs in the GPWS to accommodate the particular services for that activity. The following information is provided for user's consideration when tailoring the technical specifications.

1. Technical Specification Format. The technical specifications of the GPWS are written so that the user can easily select the type of fire protection equipment to be included in the contract, and delete those technical clauses which are not applicable.

2. Scope of Services. Two major and related decisions which must be made early on by the activity specification development team, and decisions that had to be made during development of this GPWS, are how and at what level to define the scope of the contract. More specifically, the following questions will need to be answered:

- Will major system overhauls and repairs be included in the contract, or will the scope be limited to smaller, less expensive, routine, day-to-day type repairs?

- Will the contract include maintenance and repair services only, or will new work (alterations and new construction) also be included?

a. Scope Considerations. In most cases the addition of either of these services would unnecessarily complicate the contract and not be needed since large repair requirements for properly maintained fire protection systems occur infrequently at most activities, and new work is usually best obtained by separate construction contract. However there are a number of other factors which must be considered, including the age and condition of the fire protection systems; the number of major repairs and new work requirements historically required; whether the specification is being prepared for a stand alone contract or as part of a larger contract that already contains major repair and new work requirements, such as a contract for building maintenance or base maintenance; and whether or not in-house labor is available to complete major repairs.

(1) Wage Determinations. Adding either of these services would almost certainly require the inclusion of a Davis-Bacon wage determination(s) and related labor standards provisions. Davis-Bacon wages must be paid by the Contractor if alteration/new construction services or maintenance/repair services requiring 32 labor hours or more to accomplish are included in the contract.

(2) Other Requirements. The technical specifications, Schedule of Deductions, Schedule of Indefinite Quantity Work, PRS table, historical data, and other portions of the contract would all be affected by the inclusion of either major repair services or new work. Provisions explaining how the work will be ordered and paid for would have to be clearly defined. If included in the firm fixed-price portion of the contract, the scope of potential major repairs and new work must be somehow limited and clearly defined.

b. GPWS Scope Limitations. After considering all these factors during the development of this GPWS it was decided:

- Not to include major overhauls and repairs in the GPWS. Repair services (both service work and indefinite quantity) are limited to what may be accomplished in 32 estimated labor hours or less.

- Not to include alteration and construction services in the GPWS.

3. Service Calls

a. Scope. In the GPWS service calls are limited in scope to maintenance and repair requirements requiring up to a specified number of labor hours (maximum of 32) to complete. Furthermore, the Contractor’s liability for materials is limited to a specified amount per repair (such as $200), with the Government paying for any material costs over the specified limit. Of course there are other ways to define the scope of a service call which the user may want to consider, including the following:

(1) Rather than have the Government share in the cost of materials above a certain specified limit the Contractor’s material liability may simply be limited to a total cost which is high enough to cover most all non-major repairs. For example, the Contractor’s total material liability per incidence of repair (service call) could be limited to a total cost of $500, $1,000, or higher with no material cost sharing. This option should be considered if equipment is in good condition, and therefore generates few costly service calls, or if maintenance is included as part of a larger contract which has

similar service call limits. This approach will also require less administrative effort, both for the Government and the Contractor.

(2) Minor modifications, alterations, and improvements (new work) may be performed by service call work if the appropriate Davis-Bacon wage determination(s) and other associated provisions are also included in the contract by the user. Additionally, historical data would have to be included in Attachment J-C8 indicating the expected percentage of total calls involving new work.

(3) Repairs requiring 32 labor hours or more may also be performed by service call by making changes and additions similar to those for new work. The limit of the Contractor's liability for both labor and materials must be explicitly stated, and historical or projected work load data must clearly indicate the number and size distribution of the large repairs expected. Additionally, the user may want to create an additional service call classification and obtain a separate price for Davis-Bacon service calls in the Schedule of Deductions.

b. Work Reception. Since more than likely there will be few service calls for fire protection systems at the typical activity, this GPWS is written so that the Government work reception center receives all service calls, then notifies the Contractor by phone that each call has been received and that a work authorization form is available for pickup. After regular hours the Contractor receives service call requests directly from authorized Government representatives, and classifies them as emergency, urgent, or routine. Unless fire protection systems maintenance is included as part of a multi-function contract, it will not be practical or cost effective to require the Contractor to maintain a service call reception desk or to routinely pick up work authorization forms at some predesignated location. If the user wants to have after hours calls classified by authorized Government representatives, rather than the Contractor, tailor the work reception provisions accordingly.

c. Response and Completion. In specifying service call response and completion requirements for the PWS, the user must consider the importance of the fire protection systems and the facilities they support, the location of the activity, the availability of materials, the geographic distribution of the buildings and systems, and similar factors when determining the specific requirements to be included. Keep in mind that stringent response and completion requirements will increase the cost of the contract, and could result in needless contract administration complications and problems. For example, a completion requirement of three days for a routine service call is not unreasonable, but is probably not practical or necessary either. Unreasonable requirements will not only cost more, but will also not be enforceable after the contract is awarded.

d. Urgent Calls. This GPWS requires the Contractor to respond to urgent service calls both after hours and on weekends, since by definition an urgent call is a failure in service which "would soon inconvenience and/or affect the health or well being of personnel, lead to property damage, or lead to disruption in operation and/or training missions." If the user wants only emergency calls responded to after regular hours, tailor the appropriate paragraphs accordingly.

4. Preventive Maintenance Work. Experience has shown that it is best for the Government to specify general PM frequencies and work requirements based on NAVFAC maintenance manuals and manufacturer's recommendations, rather than to have the Contractor develop and submit this type of information for approval after award of the contract. NAVFAC Manual MO-117, *Maintenance of Fire Protection Systems*, NAVFAC Handbook P-717.0, *Preventive/Recurring Maintenance Handbook*, and NAVFAC Manual MO-323, *Inspection, Maintenance and Operations Manual for Reserve Centers*, provide guidance in the preparation of PM requirements.

a. In Section C of the GPWS PM frequencies, such as annually, quarterly, weekly, etc., are specified for each given type of equipment with a list of specific equipment checks (e.g., start fire pumps) to be performed during each inspection provided. After award of the contract the Contractor is required to submit a detailed work schedule based on the information provided for the Contracting Officer's approval. Such a schedule would typically include the month and week that semimonthly and less frequent PMs would be performed, and the day of the week that weekly and more frequent inspections would be performed.

b. To help hold down the cost of the contract some activities may desire to have PM inspections with high frequencies, such as daily and weekly, performed by the Fire Department or other in-house forces. In this case confirm that there is a clear understanding (preferably in writing) between the Fire Department (or other in-house office) and Public Works as to what services will be provided. Note in the specification that some routine PM checks will be performed by Government personnel, and ensure that these services are deleted from the specification.

5. Indefinite Quantity Work. In the GPWS indefinite quantity work items are limited in scope to maintenance and repair requirements requiring less than 32 labor hours. Sample unit priced tasks are included to illustrate that unit prices for anticipated but non-recurring repairs can be established at bidding time. The user must tailor the indefinite quantity provisions in the GPWS, and should consider the following:

a. If indefinite quantity repairs are not desired or needed the indefinite quantity contract line items and associated technical and other requirements may be deleted, and the contract type changed to firm fixed-price.

b. As noted previously in paragraph III.C.2, this GPWS does not include provisions for the performance of major repair work under the indefinite quantity portion of the contract, since the 32 hour service call limit would cover the cost of almost all routine repairs likely to occur at the typical activity. However, the user may want to include such repairs if a significant number of costly repairs have historically been required.

(1) Such repairs are normally performed by adding unit priced labor (also referred to a "level of effort") provisions to the contract which provide procedures for establishing the estimated number of labor hours and material costs required for any particular job. Labor hour unit prices include all costs to perform the work required, except for material related costs. The Contractor is reimbursed for the direct cost of materials (except for pre-expended bin materials) and equipment, plus a mark-up to allow for material handling costs.

(2) The geographical EFD should be able to provide samples of the appropriate clauses and sample contract line items if the user desires to make this change. Of course the appropriate Davis-Bacon wage determination(s) and other associated provisions must also be included.

c. The unit priced labor provisions discussed above may also be used to obtain new work requirements which, as noted previously, have not been included in the GPWS.

D. Schedule of Deductions. If used the "SCHEDULE OF DEDUCTIONS" clause in Section E is one of the most important items that the specification writer must consider in tailoring this GPWS, since it directly affects the degree of difficulty required to make payment deductions for unsatisfactory performance and nonperformance of work. The schedule is used if a monthly price or limited number of subline items are included in Section B for performance of the firm fixed-price contract requirements, and should not be used if a detailed Schedule of Firm Fixed-Price Work is included in Section B. Refer to paragraph III.B.2.b for additional information on fixed-price contract line items.

1. The Schedule of Deductions requires the Contractor to break down the firm fixed-price portion of the bid for each of the fixed-price contract requirements in the PWS. This information is used in conjunction with the "CONSEQUENCES OF CONTRACTOR'S FAILURE TO PERFORM REQUIRED SERVICES" and "ESTIMATING THE PRICE OF NONPERFORMED OR UNSATISFACTORY WORK" clauses (Section E), and the Performance Requirements Summary (PRS) table (Attachment J-E2), in making payment deductions for unsatisfactory performance and nonperformance of firm fixed-price contract requirements. The completed schedule must be provided by the Contractor within 15 calendar days after award of the contract, and the Government retains the right to reject and/or unilaterally establish a schedule if the submitted schedule is unbalanced or materially deficient.

2. The user must consider changes made to the technical specifications and the length of the initial contract term when tailoring the two sample schedules provided below and make corresponding changes to the PRS table. In example #1 separate unit prices are required for each PM inspection frequency, whereas in example #2 a simple price per month is obtained for each contract requirement. Although example #1 is longer and requires more effort to develop it should be used to the maximum extent possible since the detailed unit prices will make payment deductions more accurate and easier to calculate, and make it easier to ensure that the prices submitted are realistic and balanced.

a. For both examples it is important to ensure that the "Number of Units" in the base and options periods reflects the number of services to be performed during those periods. For example, if the initial contract term is to begin on 1 April and run to 30 September the user will need to:

- change the monthly unit prices in the base period Schedule of Deductions from "12" months to "6" months

- determine the number of PM inspections that will be required during that particular six month period and, if using example #1, indicate in the base period Schedule of Deductions

b. If using example #1 it is important to ensure that line items for PM inspections performed less frequently than annually are included in the

Schedule(s) of Deductions for the contract option years in which the work will actually be accomplished. For example, if every three year PM inspections on foam extinguishing systems are to be performed in the first and fourth contract option periods, only the Schedules of Deductions for these option years would have to include this contract requirement.

EXAMPLE #1

SCHEDULE OF DEDUCTIONS FOR BASE PERIOD

	CONTRACT REQUIREMENTS	UNITS	NUMBER OF UNITS	UNIT PRICE	TOTAL PRICE
1.	Emergency Service Call Work (clause C.9)	MONTH	12	$_____	$_____
2.	Urgent Service Call Work (Clause C.9)	MONTH	12	$_____	$_____
3.	Routine Service Call Work (Clause C.9)	MONTH	12	$_____	$_____
4.	Preventive Maintenance (PM) on Fire Alarm Systems (Clause C.12)				
	a. Daily	EACH	!INSERT!	$_____	$_____
	b. Weekly	EACH	!INSERT!	$_____	$_____
	c. Monthly	EACH	!INSERT!	$_____	$_____
	d. Quarterly	EACH	!INSERT!	$_____	$_____
	e. Semiannually	EACH	!INSERT!	$_____	$_____
	f. Annually	EACH	!INSERT!	$_____	$_____
5.	PM on Automatic Sprinkler and Standpipe Systems (Paragraph C.13.a)				
	a. Semimonthly	EACH	!INSERT!	$_____	$_____
	b. Quarterly	EACH	!INSERT!	$_____	$_____
	c. Annually	EACH	!INSERT!	$_____	$_____
	d. 3 Year Tests	EACH	!INSERT!	$_____	$_____
6.	PM on Fire Pumps (Paragraph C.13.b)				
	a. Weekly	EACH	!INSERT!	$_____	$_____
	b. Semiannually	EACH	!INSERT!	$_____	$_____
	c. Annually	EACH	!INSERT!	$_____	$_____

CONTRACT REQUIREMENTS	UNITS	NUMBER OF UNITS	UNIT PRICE	TOTAL PRICE
7. PM on Fire Hydrants (Paragraph C.13.c)				
a. Semiannually	EACH	!INSERT!	$_____	$_____
b. Annually	EACH	!INSERT!	$_____	$_____
8. PM on Foam Extinguishing Systems (clause C.14)				
a. Monthly	EACH	!INSERT!	$_____	$_____
b. Quarterly	EACH	!INSERT!	$_____	$_____
c. Annually	EACH	!INSERT!	$_____	$_____
d. 3 Year Tests	EACH	!INSERT!	$_____	$_____
9. PM on Gaseous Extinguishing Systems (Clause C.15)				
a. Weekly	EACH	!INSERT!	$_____	$_____
b. Monthly	EACH	!INSERT!	$_____	$_____
c. Semiannually	EACH	!INSERT!	$_____	$_____
d. Annually	EACH	!INSERT!	$_____	$_____
10. PM on Dry and Wet Chemical Extinguishing Systems (Clause C.16)				
a. Monthly	EACH	!INSERT!	$_____	$_____
b. Semiannually	EACH	!INSERT!	$_____	$_____
c. Annually	EACH	!INSERT!	$_____	$_____
11. PM on Smoke Control Systems (Clause C.17)				
a. Semiannually	EACH	!INSERT!	$_____	$_____
b. Annually	EACH	!INSERT!	$_____	$_____

TOTAL = $_____
(Must equal amount bid for Contract Line Item 0001)

EXAMPLE #2

SCHEDULE OF DEDUCTIONS FOR BASE PERIOD

	CONTRACT REQUIREMENTS	UNITS	NUMBER OF UNITS	UNIT PRICE	TOTAL PRICE
1.	Emergency Service Call Work (clause C.9)	MONTHS	12	$_____	$_____
2.	Urgent Service Call Work (clause C.9)	MONTHS	12	$_____	$_____
3.	Routine Service Call Work (clause C.9)	MONTHS	12	$_____	$_____
4.	Preventive Maintenance (clause C.10)	MONTHS	12	$_____	$_____

TOTAL = $_____
(Must equal amount bid for Contract Line Item 0001)

E. Performance Requirements Summary. As the GPWS is being tailored a PRS Table should be prepared. This table will be included in Section J of the PWS and will be used primarily by the Contracting Officer, in conjunction with the "CONSEQUENCES OF CONTRACTOR'S FAILURE TO PERFORM REQUIRED SERVICES", "ESTIMATING THE PRICE OF NONPERFORMED OR UNSATISFACTORY WORK", and "SCHEDULE OF DEDUCTIONS" clauses, in making payment deductions for unsatisfactory performance or nonperformance of contract requirements. Additionally, the table is also very useful in the preparation of QA plans (as discussed in the QA Guide to this GPWS) and the Schedule of Deductions, and to provide the FSCM, QAEs, and customers a convenient overview of services to be provided. A sample PRS Table, which reflects the contract requirements and work requirements of this GPWS, is provided in Attachment J-E2 of the GPWS. Suggested maximum allowable defect rates (MADRs) and weights are also shown. The user should modify this table to reflect the tailored PWS's requirements and consideration of the various factors which influence the selection of MADRs and work requirement weights. NAVFAC MO-327 provides guidance on the development of PRS tables.

F. Reviewing the Tailored PWS. Conflicting and contradictory contract requirements, i.e., inconsistency within a facilities support contract, inherently lead to protests, claims, and difficulties in contract administration. As a result, the Government may pay more for required services; does not obtain the services which were intended; and/or spends a great deal more in contract administration effort than would normally be warranted. To avoid such problems, the user should carefully review the tailored PWS to find and eliminate any inconsistencies which may have been created during the tailoring process.

1. One way to eliminate inconsistencies is through the use of a matrix type check, such as that shown in Table 1 below. Such a matrix can prove to be an effective check on the consistency of the contract requirements. By matching the function with the applicable clause(s), the user can easily review those

clauses which apply to a particular function without having to continually scrutinize the entire specification.

2. Another, and probably easier way for activities which have word processing software, is to perform a search on a key word(s). For example, if we wanted to review all contract requirements for "testing" the software can search the entire document for that key word, and stop every time it encounters it. In this way, the specification writer can quickly check for inconsistencies which may have been overlooked during previous reviews.

TABLE 1
SAMPLE MATRIX CHECK FOR FIRE PROTECTION SYSTEMS CONTRACT

REFERENCE	CONTRACT REQUIREMENTS				
	EMERGENCY SERVICE	URGENT SERVICE	ROUTINE SERVICE	PREVENTIVE MAINTENANCE	INDEFINITE QUANTITY WORK
SECTION B					X
C.2	X	X	X	X	X
C.9	X	X	X		
C.10				X	
C.11					X
C.12				X	
C.13				X	
C.14				X	
C.15				X	
C.16				X	
C.17				X	
J-C8	X	X	X		
C-E2	X	X	X	X	X

IV. COMMERCIAL ACTIVITIES (CA) PROGRAM CONSIDERATIONS. This section of the User's Guide discusses some of the special items which must be considered when using this GPWS to prepare a PWS as part of a CA program study. Included are a number of provisions and changes which must be considered by the user.

A. Scope of Work. The user must remember that the scope of work and standards of performance specified in the PWS must be equivalent to the projected capabilities of the MEO. This may require some additional tailoring of the GPWS, particularly since the GPWS limits repair services to what may be accomplished in 32 estimated labor hours or less, and does not include alteration and construction services. Since in-house performance of fire protection systems maintenance would likely include both major repairs and alteration services, such work will normally have to be included in the CA program PWS. This will require the user to make some significant changes to the contract line items (Section B) and technical specifications (Section C) of the GPWS, and to make changes to other sections of the contract in order to include Davis-Bacon wage provisions. Refer to paragraph III.C.2 of this User's Guide for additional information and guidance on making these types of changes.

B. Separately Priced Options to Extend. OMB Circular A-76 requires in-house and Contractor bids to be evaluated on at least a three year basis, unless contract funding limitations prevent the initial contract term from being a full 12 months in length. In this situation, separately priced options must be included to cover at least two full fiscal years after the initial term, even if the amount of work to be provided by the Contractor is not expected to vary from year to year. In the case of fire protection system maintenance services, separately priced options will likely be required whether or not a CA program study is being conducted, since the number of PM inspections to be performed will likely vary from year to year. See paragraph III.B.4 of the User's Guide for additional information on separately priced options.

C. Multi-Function CA Contracts. In many instances, CA program studies involve contracts containing more than one functional area or service. For example, the user may want to study fire protection systems maintenance services in conjunction with buildings and structures maintenance services, and issue a single solicitation. Since most NAVFAC GPWSs are written in the same format, the technical requirements of Sections C and J of this guide may be easily combined with those of other GPWSs to produce a tailored multi-function PWS.

V. PRE-AWARD CONSIDERATIONS. Prior to award, it is essential that the activity consider the following aspects of the operation and administration of a fire protection systems maintenance contract. Additionally, Chapters 5 and 6 of NAVFAC MO-327 discuss a number of items which must be considered by the activity prior to the award of a contract, including a pre-award survey of the apparent low, responsive, responsible bidder, and a review of the submitted quality control program.

A. Quality Assurance Evaluator Training. It is vitally important to have adequate, qualified QAE resources on board prior to the contract start date. In fact, NAVFAC EFD contract offices will not allow contracts to be advertised until the activity provides assurance that such resources will be provided. NAVFAC P-68, Contracting Manual, details NAVFAC policy for minimum training requirements for personnel involved in NAVFAC contracts. The manual requires all individuals assigned to QAE duties to attend the QAE training course provided by each of EFDs within six months of their assignment, or have equivalent training as determined by the Contracting Officer. If this training has not been received, the activity should take steps to have the QAE(s) attend the next available course and, in the meantime, should develop a local training program. EFD Code 16s should be contacted for QAE training scheduling or assistance. The QAE must have a good working knowledge of maintenance and inspection procedures and requirements for fire protection systems, and will need to attend appropriate training course(s) if not already knowledgeable on these systems. Prior to bid opening, it is essential that the QAE become familiar with the specification.

B. Site Visits. The QAE or other Government representative should be prepared to conduct site visits with potential bidders after inviting bids. The purpose of these visits is to familiarize Contractors with the location of contract requirements, not to provide additional information which should have been included in the PWS. QAEs must be briefed by the Contracting Officer or the Contract Specialist as to what can and cannot be said to potential bidders during site visits. Customers must also be briefed by the Contracting Officer on precautions to be taken so as not to reveal sensitive information to potential bidders during these visits.

C. Government Furnished Property. Are Government furnished facilities, equipment, and materials, if any, ready for turnover? Has a property administrator been assigned as required by NAVFAC P-68, paragraph 45.303?

D. Quality Assurance Plans. Are adequate QA Plans prepared and ready for use?

END OF USER'S GUIDE SECTION

GUIDE PERFORMANCE WORK STATEMENT

FOR

MAINTENANCE OF

FIRE PROTECTION SYSTEMS

PART I - THE SCHEDULE

SECTION B: SUPPLIES OR SERVICES AND PRICES/COSTS

!**********

NOTE TO SPECIFICATION WRITER: Some NAVFAC Engineering Field Divisions (EFDs) require additional clauses to be added to Section B. The user must contact the appropriate geographical EFD to identify additional clauses, if any, which may be required.

The numbering system for contract line items and subline items shall follow the method prescribed in Subpart 204.71 of the DOD FAR Supplement. In the following example contract line items 0001 and 0003 are prepared as single line items supported by a Schedule of Deductions. Alternate methods would be to include a limited number of subline items, each of which would be broken down by Schedules of Deductions; or to eliminate the Schedules of Deductions from the contract and prepare detailed Schedules of Firm Fixed-Price Work, with detailed contract line items similar to those in the Schedules of Deductions. See paragraph III.B.2.b of the User's Guide for additional information on contract line items.

Only the base and first option periods are included in the example contract line items shown below. The user may be required to include other separately priced option periods to account for certain preventive maintenance inspection requirements, as discussed in paragraph III.B.4 of the User's Guide.

**********!

SCHEDULE

Item No.	Supplies/Services	Quantity	Unit	Unit Price	Amount
0001	FIRM FIXED-PRICE WORK: Price for the BASE PERIOD for all work specified in the contract, except for work specifically identified as being included in the Indefinite Quantity portion of the contract.	12	MONTH	$_____	$_____
	TOTAL PRICE FOR CONTRACT LINE ITEM NUMBER (CLIN) 0001				$_____
0002	INDEFINITE QUANTITY WORK: Price for the BASE PERIOD to perform the unit priced tasks listed in the Schedule of Indefinite Quantity Work below. The quantities listed below are realistic estimates provided solely for the purpose of bid evaluation and for establishing penal sums of bonds (if required). The price for this bid item is the total of the subline items listed in the Schedule of Indefinite Quantity Work.				

SCHEDULE

Item No.	Supplies/Services	Estimated Quantity	Unit	Unit Price	Amount

!**********

NOTE TO SPECIFICATION WRITER: The indefinite quantity contract line items shown below are provided for **illustration only**, and should not be considered a complete list. Add or delete items as required when tailoring the technical specifications. See paragraphs III.B.3 and III.C.5 of the User's Guide for additional information.

**********!

SCHEDULE OF INDEFINITE QUANTITY WORK

0002AA	Replace 4-inch dry barrel fire hydrant (Paragraph C.11.a)	!NUMBER!	EACH	$_____	$_____
0002AB	Rebuild 4-inch dry barrel fire hydrant (Paragraph C.11.a)	!NUMBER!	EACH	$_____	$_____
0002AC	Replace 3-inch post indicator valve (Paragraph C.11.b)	!NUMBER!	EACH	$_____	$_____
0002A?	!ADD ADDITIONAL UNIT PRICED TASKS, AS NEEDED!	!NUMBER!	??	$_____	$_____
0002BA	MATERIAL TO SUPPORT SERVICE CALL WORK: Price for materials to support the service call work portion of the contract in those instances where the direct cost of materials exceeds !INSERT AMOUNT! per service call (clause C.9). The price will be calculated by multiplying the bidder's fixed burden rate (FBR) times the Government's estimated cost for materials shown below, and adding the result to the estimated amount.				

$!INSERT! + ($!INSERT! x _____%) = $_____
(FBR)

TOTAL PRICE FOR CLIN 0002 (0002AA - 0002BA) $_____

TOTAL PRICE FOR BASE PERIOD (CLINs 0001 AND 0002) $_____

SCHEDULE

Item No.	Supplies/Services	Quantity	Unit	Unit Price	Amount
0003	FIRM FIXED-PRICE WORK: Price for the FIRST OPTION PERIOD for all work specified in the contract, except for work specifically identified as being included in the Indefinite Quantity portion of the contract.	12	MONTH	$_____	$_____
	TOTAL PRICE FOR CLIN 0003				$_____
0004	INDEFINITE QUANTITY WORK: Price for the FIRST OPTION PERIOD to perform the unit priced tasks listed in the Schedule of Indefinite Quantity Work below. The quantities listed below are realistic estimates provided solely for the purpose of bid evaluation and for establishing penal sums of bonds (if required). The price for this bid item is the total of the subline items listed in the Schedule of Indefinite Quantity Work.				

SCHEDULE

Item No.	Supplies/Services	Estimated Quantity	Unit	Unit Price	Amount
	SCHEDULE OF INDEFINITE QUANTITY WORK				
0004AA	Replace 4-inch dry barrel fire hydrant (Paragraph C.11.a)	!NUMBER!	EACH	$_____	$_____
0004AB	Rebuild 4-inch dry barrel fire hydrant (Paragraph C.11.a)	!NUMBER!	EACH	$_____	$_____
0004AC	Replace 3-inch post indicator valve (Paragraph C.11.b)	!NUMBER!	EACH	$_____	$_____
0004A?	!ADD ADDITIONAL UNIT PRICED TASKS, AS NEEDED!	!NUMBER!	??	$_____	$_____
0004BA	MATERIAL TO SUPPORT SERVICE CALL WORK: Price for materials to support the service call work portion of the contract in those instances where the direct cost of materials exceeds !INSERT AMOUNT! per service call (clause C.9). The price will be calculated by multiplying the bidder's fixed burden rate (FBR) times the Government's estimated cost for materials shown below, and adding the result to the estimated amount.				
				$!INSERT! + ($!INSERT! x _____%) (FBR) =	$_____
	TOTAL PRICE FOR CLIN 0004 (0004AA - 0004BA)				$_____
	TOTAL PRICE FOR FIRST OPTION PERIOD (CLINs 0003 AND 0004)				$_____
	TOTAL PRICE FOR BASE AND FIRST OPTION PERIOD (CLINs 0001 - 0004)				$_____

* FBR = Fixed Burden Rate. See DEFINITIONS - TECHNICAL clause, Section C.

END OF SECTION B

PART I - THE SCHEDULE

SECTION C: DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

TABLE OF CONTENTS

PART I - THE SCHEDULE

SECTION C: DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

!**********
NOTE TO SPECIFICATION WRITER: A "WORK EXCLUDED" clause in Section C is optional but should be used with extreme care in order to avoid giving bidders the impression that if work is not specifically excluded it is automatically included. A "WORK EXCLUDED" clause may be useful to clarify the scope of work if some fire protection systems maintenance functions are already being performed by contract or by the activity's fire department.

Note that the "GENERAL INTENTION" and "GENERAL REQUIREMENTS" clauses do not include alteration or other construction related services, which have been excluded from the scope of the GPWS. See User's Guide paragraph III.C.2 related information.
**********!

C.1 GENERAL INTENTION. The intention of this solicitation is to obtain maintenance and repair services for fire protection systems at !INSERT NAME OF ACTIVITY! by means of a combination firm fixed-price and indefinite quantity contract.

C.2 GENERAL REQUIREMENTS. The Contractor shall furnish all labor, supervision, tools, materials, equipment, transportation, and management necessary to provide maintenance and repair services for fire protection systems in accordance with the requirements specified herein. Work includes the performance of service call work to make repairs to return systems to proper operation, indefinite quantity work to make certain specific repairs, preventive maintenance inspections, and other services as described herein.

a. Attachment J-C1 describes the systems and equipment to be serviced under the contract, which include:

(1) Fire Alarm Systems

(2) Automatic Sprinkler and Standpipe Systems, including Fire Pumps and Fire Hydrants

(3) Foam Extinguishing Systems

(4) Gaseous Extinguishing Systems

(5) Dry and Wet Chemical Extinguishing Systems

(6) Smoke Control Systems

!**********
NOTE TO SPECIFICATION WRITER: Some states have special licensing and certification requirements for Contractors and individuals working on fire protection systems. The user should check for any special state requirements and spell them out in the following paragraph.
**********!

b. The Contractor shall meet all fire protection system licensing and qualification requirements of the state of !INSERT NAME OF STATE!, including

!INSERT ANY SPECIAL REQUIREMENTS!. All work shall be performed by personnel specifically qualified and trained to work on fire protection systems and equipment. Evidence of all required licenses, as well as documentation of the qualifications of personnel, shall be provided to the Contracting Officer prior to award of the contract.

!**********
NOTE TO SPECIFICATION WRITER: Unique functional terms should be added to the following list of definitions. Definitions not required should be deleted.
**********!

C.3 DEFINITIONS - TECHNICAL. As used throughout this contract, the following terms shall have the meaning set forth below. Additional definitions are in the "DEFINITIONS" clause in Section I.

a. Where "as shown", "as indicated", "as detailed", or words of similar import are used, it shall be understood that reference is made to this specification and the drawings accompanying this specification unless stated otherwise.

b. Where "as directed", "as required", "as permitted", "approval", "acceptance", or words of similar import are used, it shall be understood that direction, requirement, permission, approval, or acceptance of the Contracting Officer is intended unless stated otherwise.

c. Contracting Officer. The Contracting Officer is a person with the authority to enter into, administer, and terminate contracts and make related determinations and findings. The term includes certain authorized representatives of the Contracting Officer acting within the limits of their authority as delegated by the Contracting Officer.

d. Contractor. The term Contractor as used herein refers to both the prime Contractor and any subcontractors. The prime Contractor shall ensure that his/her subcontractors comply with the provisions of this contract.

e. Contractor Representative. A foreman or superintendent assigned in accordance with the "CONTRACTOR EMPLOYEES" clause, Section C.

f. Direct Material Costs. The actual vendor invoice charges for materials used for performance of work under this contract. Direct material costs shall include transportation charges when such charges are included on the invoice by the vendor, as well as any discounts allowed for prompt payment and discounts or rebates for core value or salvage value that accrue to the Contractor. When questions arise concerning the cost of materials, material costs will be based on the lowest of quotes provided by the Contractor from at least two different commercial vendors for the direct material cost. The Government retains the right to obtain additional quotes in questionable situations. The lowest price will be used.

g. Engineered Performance Standards (EPS). A job estimating system developed for the Department of Defense. EPS is the average time necessary for a qualified craftsman working at a normal pace, following acceptable trade methods, receiving capable supervision, and experiencing normal delays to perform defined amounts of work of a specified quality. EPS manuals are published under the following numbers by each military branch:

Navy: NAVFAC P 700 Series
Army: TB 420 Series
Air Force: AFM 85 Series

h. Facility. An establishment, structure, or assembly of units of equipment designated for a specific function.

i. Fixed Burden Rate (FBR). The additional costs (expressed in percent of direct material cost) for ordering, handling, and stockpiling materials and repair parts.

j. Frequency of Service

(1) Annual (A). Services performed once during each 12 month period of the contract at intervals of 345 to 385 calendar days.

(2) Semiannual (SA). Services performed twice during each 12 month period of the contract at intervals of 160 to 200 calendar days.

(3) Quarterly (Q). Services performed four times during each 12 month period of the contract at intervals of 80 to 100 calendar days.

(4) Monthly (M). Services performed 12 times during each 12 month period of the contract at intervals of 28 to 31 calendar days.

(5) Semimonthly (SM). Services performed 24 times during each 12 month period of the contract at intervals of 14 to 16 calendar days.

(6) Weekly (W). Services performed 52 times during each 12 month period of the contract at intervals of six to eight calendar days.

(7) Daily (D5). Services performed once each day, Monday through Friday, including holidays unless otherwise noted.

(8) Daily (D7). Services performed once each day, seven days per week, including weekends and holidays.

k. Maintenance/Repair. The preservation or restoration of a piece of equipment, a system, or a facility to such condition that it may be effectively utilized for its designated purposes. Maintenance/repair may be adjustment, overhaul, reprocessing, or replacement of constituent parts or materials that are missing or have deteriorated by action of the elements or usage, or replacement of the entire unit or system if beyond economical repair.

l. Pre-expended bin materials and supplies. The minor materials and supplies that are incidental to a job, and for which the total direct cost of any one material line item shown on the material estimate is $10.00 or less. Examples of pre-expended bin materials and supplies include, but are not limited to, solder, lead, flux, electrical connectors, electrical tape, fuses, nails, screws, bolts, nuts, washers, spacers, masking tape, sand paper, solvent, cleaners, lubricants, grease, oil, rags, mops, glue, epoxy, spackling compound, joint tape, plumbers tape and compound, clips, welding rods, and touch up paint.

m. Quality Assurance (QA). A method used by the Government to provide some measure of control over the quality of purchased goods and services received.

n. Quality Assurance Evaluator (QAE). The Government employee designated by the Contracting Officer to be responsible for the monitoring of Contractor performance.

o. Quality Control (QC). A method used by the Contractor to control the quality of goods and services produced.

p. Regular Working Hours. The Government's regular (normal) working hours are from !STARTING HOUR! to !ENDING HOUR!, Mondays through Fridays except (a) Federal Holidays and (b) other days specifically designated by the Contracting Officer.

q. Response Time. Response time is defined as the time allowed the Contractor after initial notification of a work requirement to be physically on the premises at the work site with appropriate tools, equipment, and materials, ready to perform the work required. Response times are designated in the appropriate technical clauses in Section C.

!**********
NOTE TO SPECIFICATION WRITER: Government furnished property may include real property or personal property. The specification writer must clearly identify Government furnished facilities, Government furnished equipment, and Government furnished material, if any. The following clauses should be modified as needed to fit the activity's specific situation and needs. Remember that if a CA program study is being conducted, decisions on whether or not to provide Government furnished facilities and equipment must be based on an economic analysis. Refer to OPNAVINST 4860.7B.
**********!

C.4 GOVERNMENT FURNISHED PROPERTY AND SERVICES. In accordance with the "GOVERNMENT FURNISHED PROPERTY (FIXED-PRICE CONTRACTS)" clause in Section I, the Government will provide the Contractor the option of using certain Government owned !MODIFY AS REQUIRED! facilities, equipment, materials, and utilities for use only in connection with this contract. The use of Government furnished property and services for other purposes is prohibited. All such facilities, equipment, and materials will be provided in "as is" condition.

!SELECT EITHER a. OR a.(OPTIONAL):!

a. Government Furnished Facilities. The Government will furnish or make available to the Contractor the facilities described in Attachment J-C2. The Contractor shall be responsible and accountable for such facilities accepted for use and shall take adequate precautions to prevent fire hazards, odors, and vermin. Janitorial services for Government furnished facilities shall be provided by the Contractor. The Contractor shall obtain written approval from the Contracting Officer prior to making any modifications or alterations to the facilities. Any such modifications or alterations approved by the Government will be made at the expense of the Contractor. At the completion of the contract all facilities shall be returned to the Government in the same condition as received, except for reasonable wear and tear. The Contractor shall be held responsible for the cost of any repairs caused by negligence or abuse on his/her part, or on the part of his/her employees.

a.(OPTIONAL) Government Furnished Facilities. The Government will not provide office space and operational facilities to the Contractor. The

Contractor shall secure and maintain the necessary office space and other facilities required for the performance of this contract at his/her own expense.

!**********
NOTE TO SPECIFICATION WRITER: The specification writer must determine what equipment and material will be provided to the Contractor and select from the following paragraphs as appropriate. Equipment and material should normally not be provided to the Contractor unless economically justified under a CA program study. Extensive equipment and material listings should be placed in Attachments J-C3 and J-C4 respectively, including identification number, age, location, quantity, size or capacity, etc. Specific maintenance requirements beyond the general requirements of this clause should also be detailed in these Attachments. If items are located at other than Government furnished facilities, specify location and responsibility for transportation. If no equipment or material will be provided to the Contractor, the OPTIONAL clauses should be used.
**********!

!SELECT EITHER b. OR b.(OPTIONAL):!

b. Government Furnished Equipment. The Government will provide the Contractor the use of existing and available Government owned tools and equipment in the performance of the contract. Such Government furnished tools and equipment are listed in Attachment J-C3.

(1) The Contractor shall provide periodic servicing, maintenance, and repair of the equipment accepted for use at no cost to the Government, and the total or partial breakdown or failure of the Government furnished equipment shall not relieve the Contractor of responsibility to fully perform the work of the contract. Upon completion or termination of the contract, all Government owned equipment shall be returned to the Government in the same condition as received, except for normal wear and tear. Equipment which becomes worn out due to normal wear and tear shall be returned to the Government and its replacement shall be the responsibility of the Contractor at no cost to the Government. Equipment so acquired shall remain the property of the Contractor. The Contractor shall be responsible for the cost of any repairs or replacement caused by negligence or abuse by the Contractor or his/her employees.

(2) The Contractor and the Contracting Officer shall conduct a joint inventory before commencing work under this contract to determine the exact number and serviceability of Government furnished equipment. The Contractor shall then certify the findings of this inventory, assume accounting responsibility, and subsequently report inventory discrepancies to the Contracting Officer. Government furnished equipment shall not be removed from the military base unless approved by the Contracting Officer in writing.

b.(OPTIONAL) Government Furnished Equipment. The Contractor shall furnish all tools and equipment required for the performance of this contract. The Government will not provide tools or equipment to the Contractor.

!SELECT EITHER c. OR c.(OPTIONAL):!

c. Government Furnished Material. The Government will furnish the material described in Attachment J-C4 to the Contractor on a one time basis. Should the Contractor choose to use the Government furnished material, a joint inventory shall be conducted with the Contracting Officer before commencing work to

determine the exact amount and serviceability of Government furnished materials. The Contractor shall then certify the findings of this inventory, assume accounting responsibility for all materials supplied, and provide documentation supporting issue/use of such material. Upon depletion of material provided to the Contractor by the Government, the Contractor shall furnish all material to perform the work of the contract, except as otherwise specified herein. Upon completion or termination of this contract a second joint inventory shall be conducted, if necessary, of all unused Government furnished materials. The Contractor shall be held liable for all materials which cannot be accounted for by issue/use documentation.

c.(OPTIONAL) Government Furnished Material. The Government will not provide any materials to the Contractor.

d. Availability of Utilities. The Government will furnish the following utility services at existing outlets for use in those facilities provided by the Government, and as may be required for the work to be performed under the contract: electricity, steam, natural gas, fresh water, sewage service, and refuse collection (from existing collection points). Information concerning the location of existing outlets may be obtained from the Contracting Officer. The Contractor shall provide and maintain, at his/her expense, the necessary service lines from existing Government outlets to the site of work.

!SELECT EITHER (1) OR (1)(OPTIONAL):!

(1) Utilities specified above will be furnished at no cost to the Contractor.

(1)(OPTIONAL) The Contractor shall pay for utilities consumed and shall, at his/her expense, install meters as required by the Contracting Officer to measure consumption of utilities provided by the Government. Rates for reimbursement to the Government of metered utilities will be: !LIST THE RATES OF REIMBURSEMENT PER TYPE OF SERVICE PROVIDED!

(2) A restricted telephone line (USOC Class RS4) for on base calls will be provided by the Government at no cost to the Contractor. The Contractor shall install commercial telephone service, and all service and toll charges shall be paid for by the Contractor.

C.5 CONTRACTOR FURNISHED ITEMS. Except for items listed in clause C.4, the Contractor shall provide all facilities, equipment, materials, and services to perform the requirements of this contract.

a. The Contractor shall provide new or factory reconditioned parts and components when providing the services described herein. All replacement units, parts, components, and materials to be used shall be compatible with that existing equipment on which it is to be used; shall be of equal or better quality than original equipment specifications; shall comply with applicable Government, commercial, or industrial standards such as National Board of Underwriters or Underwriters' Laboratories, Inc., National Board of Fire Underwriters, National Fire Protection Association, National Electrical Manufacturer's Association, American Society of Mechanical Engineers, etc.; shall conform to the applicable specifications listed in Attachment J-C5 and the technical specifications, Section C; and used in accordance with original design and manufacturer intent. Items not listed in Attachment J-C5 or technical specifications shall be of acceptable industrial grade and quality. If the

original manufacturer has updated the quality of parts for current production, parts supplied under this contract shall equal or exceed the updated quality. The Contractor shall retain the parts replaced for at least 10 working days after completion of the job and make these parts readily available for inspection by the Contracting Officer upon request. When disputes arise concerning material, equipment, and components selected for work items already accomplished, the Contractor shall, at no cost to the Government, remove, replace, and/or rework material, equipment, and components so that compliance with the Government's requirements are satisfied. The resolution of formal disputes is addressed in the "DISPUTES" clause, Section I.

b. The Contracting Officer may require the Contractor to submit manufacturer's descriptive data and certifications for materials and equipment used where there are questions concerning their performance and quality. Such submittals shall be delivered to the Contracting Officer within 15 calendar days of request. Manufacturer's descriptive data and certificates shall include the name of the manufacturer, model number or other identifying information, catalog cut, and other identifying data and information describing the performance, capacity, rating, and application/installation instructions which clearly illustrate that the proposed item meets the applicable standards specified in Attachment J-C5.

C.6 MANAGEMENT. The Contractor shall manage the total work effort associated with the maintenance, repair, and all other services required herein to assure fully adequate and timely completion of these services. Included in this function are a full range of management duties including, but not limited to, planning, scheduling, report preparation, establishing and maintaining records, and quality control. The Contractor shall provide an adequate staff of personnel with the necessary management expertise to assure the performance of the work in accordance with sound and efficient management practices.

a. Work Control. The Contractor shall implement all necessary work control procedures to ensure timely accomplishment of work requirements, as well as to permit tracking of work in progress. The Contractor shall plan and schedule work to assure material, labor, and equipment are available to complete work requirements within the specified time limits and in conformance with the quality standards established herein. Verbal scheduling and status reports shall be provided when requested by the Contracting Officer. The status of any item of work must be provided within !INSERT! hours of the inquiry during regular working hours, and within !INSERT! hours after regular working hours.

!**********
NOTE TO SPECIFICATION WRITER: In the following paragraph specify those systems, areas, or buildings, if any, where work must be accomplished only during specific time periods, such as other than during regular working hours.
**********!

b. Work Schedule. The Contractor shall schedule and arrange work so as to cause the least interference with the normal occurrence of Government business and mission. In those cases where some interference may be essentially unavoidable, the Contractor shall make every effort to minimize the impact of the interference, inconvenience, equipment downtime, interrupted service, customer discomfort, etc.

!**********
NOTE TO SPECIFICATION WRITER: Reports and information which the Government

periodically needs from the Contractor, as well as any required cost accounting reports, should be listed in Attachment J-C6. Report formats, required information, etc. should be discussed in detail in this attachment. If history files are to be maintained by the Government, tailor the following paragraph accordingly.
**********!

c. Records and Reports. The Contractor shall maintain management, maintenance, and repair records and prepare management, maintenance, and repair reports as set forth in Attachment J-C6, "LIST OF REQUIRED RECORDS AND REPORTS". All records and copies of reports shall be turned over to the Contracting Officer within five calendar days after contract completion. A complete work (history) file for each fire protection system listed in Attachment J-C1 shall be maintained by the Contractor. Files shall contain a listing of all equipment in each building and structure by nomenclature and manufacturer's model number, as well as all manufacturer's literature, brochures, and pamphlets; maintenance, operator's, and parts list manuals; warranty information; a copy of all completed Service Call Work Authorization forms, indefinite quantity delivery orders, and Preventive Maintenance Inspection Record forms; and other information pertaining to the fire protection systems. All documents shall be filed within 10 working days of the completed transaction, with the exception of Preventive Maintenance Inspection Record forms, which shall be filed within two working days after the completion of each preventive maintenance inspection. The Government will have access to these files upon request. The entire file shall be turned over to the Government upon completion of the contract.

d. Building Managers. Within 10 calendar days following award of this contract, the Contracting Officer will provide the Contractor with a list of building managers. The Contractor shall notify the building manager and activity fire chief at least two working days in advance of any work to be performed in a building under their control that would tend to disrupt the conduct of normal Government business. Notification shall include the type of work to be done and the estimated completion date. The Contractor shall reschedule any work that the Contracting Officer deems necessary to avoid unacceptable disruptions in the Government's business.

e. Staffing. The Contractor shall continuously maintain an adequate staff with suitable management expertise to assure work is scheduled and completed in accordance with these specifications. The Contractor shall maintain an adequate craft work force to complete work in accordance with the time and quality standards specified.

C.7 GENERAL REQUIREMENTS AND PROCEDURES

a. Standards. All workmanship shall meet the standards specified herein and shall be accomplished in conformance with approved and accepted standards of the industry; equipment manufacturers; all applicable activity, local, state, and federal standards; and all applicable building and safety codes, including the National Fire Protection Association, National Electric Code, Standard Plumbing Code, etc.

(1) When the Contractor completes work on a system or piece of equipment, that system or piece of equipment shall be free of missing components or defects which would prevent it from functioning as originally intended and/or designed. Corrective or repair/replacement work shall be carried to completion including operational checks and cleanup of the job site. Except where

otherwise noted, replacements shall match existing in dimensions, finish, color, and design.

(2) During and at completion of work, debris shall not be allowed to spread unnecessarily into adjacent areas nor accumulate in the work area itself. All such debris, excess material, and parts shall be cleaned up and removed at the completion of the job and/or at the end of each day work is in progress.

!**********
NOTE TO SPECIFICATION WRITER: Remember when tailoring the following paragraph that Davis-Bacon wage provisions must be included if repairs requiring 32 hours or more are included. See User's Guide paragraph III.A.3 and III.C.2 for additional information.
**********!

b. Major Repair. Major repair is not included within the scope of this contract. Major repair is defined as any individual unit or incident of repair which requires 32 estimated labor hours or more to complete. Major repair will normally be accomplished by separate contract or by Government forces. This exclusion does not apply if the repair is required to correct damage caused by the Contractor's negligence.

c. Replacement, Modernization, Renovation. During the term of the contract, the Government may replace, renovate, or improve systems and equipment at the Government's expense and by means not associated with this contract. All replaced, improved, updated, modernized, or renovated systems and equipment shall be maintained and/or repaired by the Contractor at no additional cost to the Government unless such changes result in an increase or decrease in contract requirements. Changes, replacements, or deletions which result in an increase or decrease in contract requirements will result in adjustments to the contract price in accordance with the "CHANGES" clause, Section I.

d. Equipment Under Manufacturer's or Installer's Warranty. Equipment, components, and parts, other than that installed under this contract, shall not be removed or replaced or deficiencies corrected while still under warranty of the manufacturer or the installer without prior approval of the Contracting Officer. All defects in material or workmanship, defective parts, or improper installation and adjustments found by the Contractor shall be reported to the Contracting Officer so that necessary action may be taken. The Contractor shall be knowledgeable of the equipment, parts, and components that are covered by warranty and the duration of such warranties. Available warranty information will be furnished to the Contractor by the Contracting Officer.

e. As Built Drawings

(1) Existing as-built drawings will be available to the Contractor for information only. The Government makes no representation as to the completeness or accuracy of these drawings.

(2) All changes to or additions to the fire protection systems and equipment made by the Contractor shall be recorded by the Contractor and provided to the Contracting Officer within !INSERT NUMBER! calendar days of the completed work. This data shall include, but is not limited to, dimensioned drawings and/or sketches.

!**
NOTE TO SPECIFICATION WRITER: Modify or delete the following paragraph if not applicable. For example, if another Contractor (or in-house forces) operates a system to be maintained under this contract, the responsibilities of each must be specifically spelled out.
**!

f. Interface With Other Contractors and Government Forces. Attention is invited to the fact that other Contractors !AND/OR GOVERNMENT FORCES! are engaged in similar and supporting work, requiring close cooperation. The Contractor for this contract shall cooperate with all other Contractors and avoid conflicts with other Contractor's performance and work schedules. In the event of conflicts with other Contractors that cannot be satisfactorily resolved, the matter shall be referred to the Contracting Officer for decision. Such decisions shall be final, subject to right of appeal in accordance with the "DISPUTES" clause, Section I.

g. Damages Caused by Weather Conditions or Vandalism. Work required to repair facilities or equipment damaged by inclement weather conditions and/or acts of vandalism shall be performed at no additional cost to the Government if such work is within the scope of a service call. The historical data in Attachment J-C8 includes such instances of repair.

C.8 WORK OUTSIDE REGULAR WORKING HOURS. Except as may otherwise be specified, all work shall be performed during the Government's regular working hours. If the Contractor desires to carry on work on Saturday, Sunday, holidays, or outside regular working hours, he/she must submit application to the Contracting Officer for approval.

!**
NOTE TO SPECIFICATION WRITER: Tailor the following paragraphs as required. Remember that the service call labor hour limit to be inserted below must be less than 32 hours unless Davis-Bacon wage provisions have been included in the contract. Paragraphs III.C.2 and III.C.3 of the User's Guide provides additional information and user considerations.
**!

C.9 GENERAL REQUIREMENTS AND PROCEDURES FOR SERVICE CALL WORK. Service calls are defined as maintenance and repair work requirements which are identified by building occupants or generated by designated Government representatives, and require not more than !INSERT! estimated total labor hours for accomplishment. The Contractor shall perform service call work as necessary to determine the cause of system and equipment malfunctions, eliminate the cause(s), and restore the system or equipment to satisfactory working condition. Multiple maintenance and repair requirements received for a single fire protection system in the same building or structure will be combined into one service call. For example, "leaking sprinkler" and "leaking check valve" in the same building/system would be one service call. All service call work is included in the firm fixed-price portion of the contract, and is subject to the Service Contract Act wage determination included in Attachment J-1. When questions arise concerning the labor hours required for a particular job, labor hour requirements will be based on Engineered Performance Standards (EPS) Manuals (NAVFAC P-700 series) or, if not applicable, other estimating sources.

!**
NOTE TO SPECIFICATION WRITER: Paragraph a. below provides for insertion of a

materials cost "cap" or limit for each service call. Beyond this "cap" the Government will reimburse the Contractor for the cost of additional material requirements. See User's Guide paragraph III.C.3 for information on alternate procedures which may be used to limit the Contractor's repair liability.
**********!

a. Shared Material Cost. For any individual unit or incident of repair (i.e., per service call), the Contractor shall furnish up to !INSERT! SAME NUMBER AS ABOVE! hours of labor and all repair parts, sub-assemblies, assemblies, and other materials required to complete the repair. However, the Contractor will be reimbursed for the cost of materials to the extent that the total direct material cost (excluding pre-expended bin materials) exceeds !INSERT $ AMOUNT, $200 IS RECOMMENDED! per service call. For example, if the total cost of non pre-expended bin materials required to complete a service call is $1,000, the Contractor will be reimbursed !INSERT $ AMOUNT, E.G., $800!. Material estimated to cost more than !INSERT SAME $ LIMIT! shall not be purchased without prior approval of the Contracting Officer. The limitations of this paragraph do not apply to repairs required to correct damage caused by the Contractor.

(1) Supplier's Price Quotations. In order to receive reimbursement for the cost of materials the Contractor shall obtain a minimum of two commercial supplier's quotes when the total direct cost of materials required for a service call exceeds !INSERT SAME $ LIMIT!. Quotes, including the size, quality, number of units, and date of expected availability shall be submitted in writing to the Contracting Officer as required during the course of work.

(2) Establishing Reimbursement Amount. Material prices used in establishing the reimbursement amount shall be the lowest price available considering the availability of materials and the time constraints of the job. The cost of pre-expended bin supplies and materials shall not be included. !INSERT SAME $ LIMIT! will be subtracted from the total direct material cost for the job and the resultant multiplied by the Contractor's fixed burden rate from the "MATERIAL TO SUPPORT SERVICE CALL WORK" contract line item, Section B, to determine the total amount of reimbursement due the Contractor. An indefinite quantity delivery order for this amount will then be issued by the Contracting Officer.

b. Service Call Reception

!**********
NOTE TO SPECIFICATION WRITER: If service calls subject to the Davis-Bacon Act are included in the contract the Government work reception center must also identify the wage rate applicable to each call, i.e., either Service Contract Act or Davis-Bacon Act.
**********!

(1) During Regular Working Hours. The Government's work reception center will advise the Contractor by phone of all service call requests received during regular working hours, as well as the classification of each call based on the definitions provided below. A description of the problem or requested work, date and time received, location, classification, and other appropriate information will be placed on a Service Call Work Authorization Form (see Attachment J-C7) and made available for pickup by the Contractor at the Government's work reception center.

(2) After Regular Working Hours. The Contractor shall receive service call requests directly from authorized Government representatives after regular working hours, on weekends, and holidays. Calls shall be received and classified by the Contractor as emergency, urgent, or routine in accordance with the definitions provided in the "Service Call Classification" paragraph of this clause, and responded to accordingly. If the call is classified as emergency or urgent, the Contractor shall fill out a Service Call Work Authorization Form, including description of the problem, date and time received, system identification and location (building number), and caller's name and telephone number. If the call is classified as routine, the Contractor shall record the same information, but shall not fill out a work authorization form. One copy of each emergency and urgent work authorization form and a log of all routine calls received shall be delivered to the Government's work reception center by !INSERT TIME! the next regular working day. The Contracting Officer may upgrade or downgrade the classification of any service call received by the Contractor.

c. Service Call Classification

(1) Emergency Calls. Service calls will be classified as emergency at the discretion of the Contracting Officer. Generally, emergency calls will consist of correcting failures which constitute an immediate danger to personnel, threaten to damage property, or threaten to disrupt activity operations and/or training missions. Examples include outages in fire protection systems which support training equipment or provide other vital services, alarm system sounding (false alarm), discharging sprinkler system, etc.

(2) Urgent Calls. Service calls will be classified as urgent at the discretion of the Contracting Officer. Generally, urgent calls will consist of providing services or correcting failures which do not immediately threaten personnel, property, or activity missions; but which would soon inconvenience and/or affect the health or well being of personnel, lead to property damage, or lead to disruptions in operational and/or training missions. Examples include outages in fire protection systems which support vital facilities and which occur after regular working hours, inoperative smoke detectors, etc. Calls will also be classified as urgent when the service or failure has upper level or command/management attention.

(3) Routine Calls. Service calls will be classified as routine when the work does not qualify as an emergency or urgent call. Examples include routine repairs to fire alarm systems, fire pumps, water lines, etc.

d. Response to Service Calls. The Contractor shall have adequate procedures for receiving and responding to service calls 24 hours per day, seven days a week, including weekends and holidays. A single local or toll free telephone number shall be provided by the Contractor for receipt of all service calls. All telephone calls shall be answered within 30 seconds by an individual fully familiar with the Contractor's work control procedures and the terms and conditions of this contract. Service calls shall be considered received by the Contractor at the time and date the telephone call is placed by the work reception center or other authorized Government representative.

!**********
NOTE TO SPECIFICATION WRITER: The user must insert response and completion times as required to suit the activity's needs. Remember that quick response to service calls adds to contract cost and may contribute to contract

administrative problems. Do not specify response times that are more rapid than are truly needed.
**********!

(1) Response by Classification

(a) Emergency Calls. The Contractor shall respond immediately and must be on the job site and working within !INSERT NUMBER! minutes after receipt of an emergency service call. The Contractor shall work continuously without interruption and shall arrest the emergency condition before departing the job site (e.g., shut off water and replace broken sprinkler heads, replace broken alarm initiating devices, correct short circuit fault in alarm systems, etc.). If further labor and material (follow up work) are required to complete the repair, the call will be reclassified as either urgent or routine, as appropriate, and the corresponding completion time will then apply. Such follow up work shall be considered part of the original service call. If the follow up work is beyond the scope of a service call the procedures in paragraph C.9.d(2) below shall apply.

(b) Urgent Calls. The Contractor shall be on the job site and working within !INSERT! hours after receipt of an urgent service call received during regular working hours, and within !INSERT! hours for urgent calls received after regular working hours, on weekends, or holidays. Once begun, the work shall be prosecuted to completion and must be completed within !INSERT NUMBER! hours.

(c) Routine Calls. All routine service calls shall be completed within !INSERT NUMBER! working days of receipt. Routine calls shall normally be accomplished during regular working hours, Monday through Friday.

(2) Beyond the Scope of a Service Call. If the Contractor responds to a service call and believes that the work required is beyond the scope of a service call, as defined above, the work authorization form shall be returned to the work reception center no later than !INSERT TIME! the following workday. The Contractor shall attach a summary of the work needed and a detailed EPS estimate showing labor hour and material requirements. The Contracting Officer may waive the requirement to submit estimates in cases where the scope of work is clearly beyond that of a service call.

(a) If the Contracting Officer agrees that the work required is beyond the scope of a service call, the scope of the work will be reduced and a new service call work authorization issued by the Government, or the original work authorization will be canceled. If the original work authorization is canceled, the work will be accomplished by means other than this contract.

(b) If the Contracting Officer determines that the work falls within the scope of a service call, the original work authorization will be returned to the Contractor, who shall complete the work. Work on such calls shall still be completed within !INSERT NUMBER! working days from the original receipt date/time, plus the amount of time the work authorization was held by the Contracting Officer for determination. Payment deductions and liquidated damages will be taken if the work is not completed within this time frame.

e. Completed Calls. Within one working day after completion of each service call the Contractor shall add the following information to the work authorization form and return to the work reception center:

(1) Description of work actually completed.

(2) Brief description of material and parts used, including quantities.

(3) Date and time work began.

(4) Date and time work was completed.

(5) Hours of labor (by trade) expended.

(6) Signature or initials of the Contractor's craftsman performing the work (or supervisor), indicating that the work has been completed.

f. Materials and Equipment. The Contractor shall maintain sufficient off-the-shelf materials and equipment on hand to support service call work requirements. Lack of availability of materials or equipment shall not relieve the Contractor from the requirement to complete service call work within the time limits specified above.

g. Historical Data. Data on the numbers and types of service calls of each classification that have historically been performed are included in Attachment J-C8.

!**********
NOTE TO SPECIFICATION WRITER: The user must insert dollar and time limits per repair per PM inspection in the following paragraph. Remember that the intent of the PM is to test systems, perform routine maintenance, and to identify needed repairs, not to perform extensive repair work. Repairs should first be screened by the FMED then, if appropriate, performed by service call. With this in mind, the repair limits set below should be based on the number, size, complexity, and condition of the equipment to be PMed.
**********!

C.10 GENERAL REQUIREMENTS AND PROCEDURES FOR PREVENTIVE MAINTENANCE WORK. The Contractor shall perform preventive maintenance (PM) inspections on the systems and equipment listed in Attachment J-C1 in accordance with the procedures specified in this clause and the "SPECIFIC REQUIREMENTS" clauses which follow. All PM work is subject to the Service Contract Act wage determination included in Attachment J-1. PM consists primarily of inspection, testing, cleaning, lubrication, adjustment, calibration, and minor part and component replacement (e.g. filters, batteries, fluids, oil and grease) as required to verify proper system operation; minimize malfunction, breakdown, and deterioration of systems and equipment; and identify and/or perform any repairs required to bring the equipment up to the manufacturer's operating standards, provided that such repairs can be made within !INSERT NUMBER! estimated direct labor hours or less and the total direct material cost does not exceed !INSERT $ AMOUNT! per PM inspection. PM shall be performed at least as frequently and shall, at a minimum, include all of the applicable check points and services indicated in the "SPECIFIC REQUIREMENTS" clauses that follow. The Contractor may, at his/her option and at no additional cost to the Government, increase the level and/or frequency of PM in an effort to minimize repair requirements. The Government will provide the manufacturer's recommended PM schedule, as available, and other available manuals, pamphlets, etc. to the Contractor.

!**
NOTE TO SPECIFICATION WRITER: From the PM frequencies specified in the "SPECIFIC REQUIREMENTS" clauses (C.12 - C.17), the Contractor will normally be required to develop and submit a detailed PM schedule for approval by the Contracting Officer. As an alternate, the user may want to require the Contractor to use a previously developed schedule which should be included in an attachment in Section J. Choose the OPTIONAL clause below in this case.

If the base period of the contract will be less than 12 months in length, the user must tailor the following paragraph and/or the "SPECIFIC REQUIREMENTS" clauses so that it is clear what specific PMs will be performed during the base period. For example, indicate which specific annual PMs will be performed during the base period.
**!

a. The Contractor shall submit a detailed PM schedule to the Contracting Officer for approval at least 15 calendar days prior to the start date of the contract. The schedule shall cover the entire term of the contract and shall include, for each specific piece of equipment listed in Attachment J-C1 and each PM inspection required in the "SPECIFIC REQUIREMENTS" clauses, the location (facility number); work to be performed (e.g., monthly PM); and the week of the month that semimonthly or less frequent PMs will be performed, and the day of the week that weekly or more frequent PMs will be performed. The schedule shall be in a format such that the completion of each PM inspection may be indicated on the schedule. Once the Contractor's PM schedule is approved PM inspections shall be performed by the Contractor without further authorization by the Contracting Officer. The Contractor shall strictly adhere to the scheduled PM dates to facilitate Government verification of work. If the Contractor finds it necessary to reschedule PM, a written request shall be made to the Contracting Officer detailing the reasons for the proposed change at least five working days prior to the originally scheduled PM date. No scheduled PM dates shall be changed without the prior written approval of the Contracting Officer.

a.(OPTIONAL) The Contractor shall perform PM inspections in accordance with the schedule provided in Attachment J-C!INSERT!. The Contractor shall strictly adhere to the scheduled PM dates to facilitate Government verification of work. If the Contractor finds it necessary to reschedule PM, a written request shall be made to the Contracting Officer detailing the reasons for the proposed change at least five working days prior to the originally scheduled PM date. No scheduled PM dates shall be changed without the prior written approval of the Contracting Officer.

b. The Contractor shall submit a copy of the previous week's portion of the PM schedule to the Contracting Officer by !INSERT TIME! each Monday indicating the scheduled PM inspections completed during the previous week, and those scheduled inspections not completed. If inspections were performed which were deferred from previous weeks, they shall be noted on an attachment to the submittal. Also attached shall be:

(1) A list of equipment deficiencies noted during the PM inspections which are beyond the scope of work of preventive maintenance, as defined above. These reports shall provide a detailed description of identified deficiencies. The Contracting Officer may issue a service call work authorization for correction of the deficiencies noted, the work may be performed by means other than this contract, or the work may be deferred due to lack of funds, etc. If at the time of the inspection the Contractor feels it would be more economical

to make such repairs while conducting the inspection, such as while a valve is open for cleaning and inspection, the Contractor may notify the Contracting Officer by phone of the defect and request a work authorization to make the repair at that time.

(2) Any reports, data, or submittals required as part of PM inspections. For example, fire hydrant flow test results are required to be submitted in paragraph C.13.c(1).

!**********
NOTE TO SPECIFICATION WRITER: Tailor the following paragraph if facility history files are to be maintained by the Government.
**********!

c. The Contractor shall complete and maintain a Preventive Maintenance Inspection Record form for each item of equipment and system listed in Attachment J-C1. The completed forms shall be maintained by the Contractor in a history file throughout the term of the contract (see "Records and Reports" paragraph of the "MANAGEMENT" clause). A copy of the Preventive Maintenance Inspection Record form is included in Attachment J-C6.

!**********
NOTE TO SPECIFICATION WRITER: The following clause was included to describe the procedures that will be used to order indefinite quantity work and to illustrate how detailed scopes of work must be provided for each contract line item. The items shown below are for illustration only and should not be considered a complete list. If additional line items are added by the user they too should be described in detail in this clause. Line items may not include alteration or construction tasks and must be accomplishable in less than 32 labor hours unless Davis-Bacon wage provisions are included in the contract. See paragraphs III.C.2 and III.C.5 of the User's Guide for more detailed information.
**********!

C.11 GENERAL REQUIREMENTS AND PROCEDURES FOR INDEFINITE QUANTITY WORK. The indefinite quantity contract line items listed in the Schedule of Indefinite Quantity Work, Section B, will be ordered by the Contracting Officer on a delivery order, DD Form 1155, in accordance with the "PROCEDURES FOR ISSUING ORDERS" clause, Section G. Unless noted otherwise in the following paragraphs, all work must be complete within !INSERT NUMBER! days after delivery order receipt. All work is subject to the Service Contract Act wage determination included in Attachment J-1. The following paragraphs describe the work required for each item.

a. Fire Hydrants

(1) Replacement. Fire hydrant replacement shall include removal of the existing hydrant; installation of a new hydrant meeting the requirements specified in Attachment J-C5, including all required fittings and connections to the water distribution system; and backfilling and returning the site to its original condition, including replacement of pavement or top soil and sod, etc.

(2) Rebuilding. Fire hydrant rebuilding shall include removal and replacement of all packing, gaskets, operating nuts, and nozzle threads. Upon completion the hydrant shall operate as designed.

b. Replace Post Indicator Valves. Post indicator valve replacement shall include removal of the existing valve, installation of a new valve meeting the requirements specified in Attachment J-C5, including all required fittings and connections to the water distribution system; and backfilling and returning the site to its original condition, including replacement of pavement or top soil and sod, etc.

!**********!

NOTE TO SPECIFICATION WRITER: The frequencies and specific checks, tests, and inspections specified in the following clauses are based on the requirements of NAVFAC manual MO-117. The user must ensure that equipment manufacturer or other specific equipment maintenance requirements are accounted for and tailor these requirements accordingly. Also, if the initial contract term will be for less than 12 full months, the user must ensure that the number of PM inspections to be performed during the initial period is clearly defined. For example, the specification must state whether or not annual checks and inspections will be performed during the initial contract period, as well as the number of semiannual and quarterly inspections which will be accomplished.

!**********!

C.12 SPECIFIC REQUIREMENTS FOR FIRE ALARM SYSTEMS. The Contractor shall inspect, maintain, and repair the fixed fire alarm systems and equipment listed in Part A of Attachment J-C1 so that they are continuously maintained in complete, reliable, and safe operating condition as originally designed and intended. Electrical connections required to operate alarm systems shall be maintained back to the source of electricity, up to but not including circuit breakers and disconnects. Wires (other than telephone lines) connecting remote station alarm systems shall be maintained throughout the fire alarm system. Telephone lines in remote station alarm systems shall be maintained back to the interface with the main telephone lines. PM inspections shall be scheduled and conducted as specified in the "GENERAL REQUIREMENTS AND PROCEDURES FOR PREVENTIVE MAINTENANCE WORK" clause, and PM procedures shall conform to the requirements contained in Chapter 3 of the NAVFAC MO-117, current National Fire Protection Codes, and the recommendations of the equipment manufacturer. The following list summarizes the principal tests and inspections required.

!**********!

NOTE TO SPECIFICATION WRITER: Daily testing may be either five or seven days a week, depending on the criticality of the facilities protected. Specify specific facilities for seven day a week service in paragraph a. below.

Since the cost of daily/weekly testing is likely to be significant, even for a small number of systems, the user should consider having these tests performed by in-house personnel. See User's Guide paragraph III.C.4.b.

To designate which facilities are populated/unpopulated, it is suggested that unpopulated facilities be listed in paragraph d. below.

!**********!

a. Daily. Seven days per week (D7) for the systems in Buildings 295, 421, and !ETC!. Five days per week for all other systems.

. Operational test of major receiving equipment (main console).

. Operational test of signal recording devices.

b. Weekly

. Operational test of engine driven emergency generators.

. Check rechargeable battery water level and replace as needed.

c. Monthly

. Visual inspection of all alarm equipment.

. Operational test of initiating and signaling circuits for populated buildings [all facilities not listed in paragraph d(1) below].

. Optical integrity test of ultraviolet flame detectors if test feature is built in.

. Operational test of indicating devices.

. Operational test of base system circuits.

. Check rechargeable cell voltages.

d. Quarterly

. Operational test of initiating and signaling circuits for unpopulated buildings, as listed below:

BUILDING NUMBER	USE	APPROXIMATE SQUARE FEET
1622	Warehouse	150,000
1700	Communication Switching Station	2,000
	!ETC!	

. Operational test of waterflow detectors.

. Operational test of base system circuits with ground and open faults.

. Operational test of base system transmitters.

. Operational test of noncoded receiver modules.

e. Semiannually

. Operational test of manual fire stations, coded and noncoded.

. Operational test of 10% of spot type heat detectors.

. Operational test of line type heat detectors (simulated test only of nonreusable type).

. Operational test of smoke detectors.

. Operational test of infrared flame detectors.

. Operational test of ultraviolet flame detectors.

f. Annually. Operational test of supervisory initiating devices.

C.13 SPECIFIC REQUIREMENTS FOR AUTOMATIC SPRINKLER AND STANDPIPE SYSTEMS. The Contractor shall inspect, maintain, and repair the automatic sprinkler, standpipe, and related systems listed in Part B of Attachment J-C1 so that they are continuously maintained in complete, reliable, and safe operating condition as originally designed and intended. PM inspections shall be scheduled and conducted as specified in the "GENERAL REQUIREMENTS AND PROCEDURES FOR PREVENTIVE MAINTENANCE WORK" clause, and PM procedures shall conform to the requirements contained in Chapter 5 of the NAVFAC MO-117 and the recommendations of the equipment manufacturer.

a. Automatic Sprinkler and Standpipe Systems. Automatic sprinkler and standpipe systems shall be maintained back to the main water distribution system, including backflow preventers, post indicator valves, check valves, and waterflow meters. Spare sprinkler heads are currently on hand and available for the Contractor’s use for each sprinkler system, as required by NAVFAC MO-117 and NFPA 13. The Contractor shall provide a replacement unit within 14 calendar days after the use of any sprinkler head, and shall check and report missing heads and wrenches as part of each PM inspection. The following list summarizes the principal tests and inspections required.

(1) Semimonthly. Check water level and air pressure in pressure tanks.

(2) Quarterly

. Check air and water pressure in dry pipe systems.

. Check water level in tanks.

. Conduct main drain tests.

. Check general condition of standpipe systems.

. Inspect check valves, water flow meters, and backflow preventers.

. Inspect valves for open position.

(3) Annually

. Check general condition of sprinklers and sprinkler systems.

. Conduct flow tests of open sprinklers.

. Trip test dry pipe valves.

. Drain low points in dry pipe systems.

. Perform waterflow test.

. Check general condition of water storage tanks.

- Check general condition of pressure tanks.
- Check tank heating systems.
- Inspect and test cathodic protection equipment.
- Inspect and test controllers.
- Conduct preventive maintenance inspection of valves.
- Test pressure regulating and altitude valves.
- Check for painted or obstructed sprinkler heads. Replace as required.

!**********
NOTE TO SPECIFICATION WRITER: Be sure to indicate the specific option periods of the contract during which these tests will be performed. For example, "during the base and third option periods" or "during the first and fourth option periods". Ensure that the Schedule(s) of Deductions for the specified option period(s) includes these tests.
**********!

(4) Every 3 Years. These tests shall be performed during the !INSERT! and !INSERT! option periods of the contract.

- Trip test deluge and pre-action systems.
- Trip test high speed suppression systems.

b. Fire Pumps. Fire pumps shall be maintained up to and including the starting equipment. The following list summarizes the principal tests and inspections required.

(1) Weekly - Engine Driven Pumps

- Check fluid levels and replace as needed before starting.
- Start pumps and run for 30 minutes.
- Test operation of the speed governor and overspeed trip. Adjust as needed.
- Inspect storage batteries, recharge, and add water as needed.
- Maintain diesel engines in accordance with manufacturer's recommendation.

!**********
NOTE TO SPECIFICATION WRITER: If activity desires to furnish fuel, change paragraph (f), accordingly.
**********!

- Check fuel and maintain at least an eight hour supply.

(2) Monthly - Electric Driven Pumps

- Start pumps and run for 30 minutes.

- Check electrical wiring and connections. Repair and tighten as required.

- Check rated motor speed. Set governors of variable speed drivers for correct speed.

(3) Semiannually

- Replace crankcase oil, and oil and air filters.

- Check bearings and stuffing boxes. Adjust as necessary.

- Check electric motor controllers.

(4) Annually. Perform full operational test.

c. Fire Hydrants. Fire hydrants shall be maintained back to and including the valves and laterals to the main water distribution system. The following list summarizes the principal tests and inspections required.

(1) Semiannually. Conduct flow test of all hydrants above and below ground on dead-end fire mains. Flow rating information from past tests will be provided to the Contractor, if available. Water shall be discharged until clear and hydrants checked for proper drainage. Flow tests shall be coordinated with the activity's Fire Chief and test results shall be provided to the Contracting Officer and the Fire Chief upon completion.

(2) Annually

(a) Flush and conduct flow test of all fire hydrants above and below ground on other than dead-end fire mains. Flow rating information from past tests will be provided to the Contractor, if available. Water shall be discharged until clear and hydrants checked for proper drainage. Flow tests shall be coordinated with the activity's Fire Chief and test results shall be provided to the Contracting Officer and the Fire Chief upon completion.

(b) Check general condition of all hydrants, including the following:

- Check tightness of nozzles, inspecting at a point where nozzles enter hydrant barrel. Caulk as necessary.

- Check for leaks in the top of the hydrant. If necessary, remove cover and tighten the packing gland, or repack.

- Check for leaks past gaskets under caps. Replace defective gaskets.

- Check for and report cracks in barrel.

- Check tightness of valve and seat.

- Inspect the operating nut and replace if required.

- Inspect nozzle threads for damage. Report damage.

- Lubricate stem through the screw hole in the top of the operating nut.

C.14 SPECIFIC REQUIREMENTS FOR FOAM EXTINGUISHING SYSTEMS. The Contractor shall inspect, test, maintain, and repair the foam extinguishing systems and equipment listed in Part C of Attachment J-C1 so that they are continuously maintained in complete, reliable, and safe operating condition as originally intended and designed. Foam extinguishing systems shall be maintained back to the main water distribution system, including supply valve; and electrical connections back to the source of electricity, up to but not including circuit breakers and disconnects. PM inspections shall be scheduled and conducted as specified in the "GENERAL REQUIREMENTS AND PROCEDURES FOR PREVENTIVE MAINTENANCE WORK" clause, and PM procedures shall conform to the requirements contained in Chapter 7 of the NAVFAC MO-117 and the recommendations of the equipment manufacturer. The following list summarizes the principal tests and inspections required.

a. Monthly

- Check foam concentrate level in tank.

- Insure all valves are in correct position.

- Check water supply pressure.

- Visually inspect proportioning devices, pumps, and foam makers.

b. Quarterly

- Inspect foam concentrate storage containers for corrosion.

- Operate pumps and all systems without producing foam.

- Insure all interlocks and closures operate correctly.

c. Annually

- Check foam concentrate quality.

- Inspect foam system piping.

!**********
NOTE TO SPECIFICATION WRITER: Be sure to indicate the specific option periods of the contract during which this test will be performed.
**********!

d. Every 3 Years. Operate pumps and all systems with foam discharge.

!**********
NOTE TO SPECIFICATION WRITER: The MO-117 requires other periodic testing, such as five and 12 year tests on cylinders and hoses. The user should add these tests if appropriate and indicate the specific option period(s) of the contract

during which they will be performed, or simply have the work performed by means other than this contract.
**********!

C.15 SPECIFIC REQUIREMENTS FOR GASEOUS EXTINGUISHING SYSTEMS. The Contractor shall inspect, maintain, and repair the gaseous extinguishing systems and equipment listed in Part D of Attachment J-C1 so that they are continuously maintained in complete, reliable, and safe operating condition as originally designed and intended. Gaseous extinguishing systems shall be maintained up to and including tanks, cylinders and hoses. Electrical connections shall be maintained back to the source of electricity, up to but not including circuit breakers and disconnects. PM inspections shall be scheduled and conducted as specified in the "GENERAL REQUIREMENTS AND PROCEDURES FOR PREVENTIVE MAINTENANCE WORK" clause, and PM procedures shall conform to the requirements contained in Chapter 9 of the NAVFAC MO-117 and the recommendations of the equipment manufacturer. The following list summarizes the principal tests and inspections required.

a. Weekly. Check liquid level in low pressure CO_2 storage tanks.

b. Monthly

. Check CO2 and Halon nozzles and hand hose lines.

. Check devices and connections of low pressure CO2 systems for leakage.

c. Semiannually

. Weigh cylinders.

. Test tank alarm pressure switch and identification device.

d. Annually. Conduct actuating and operating tests of CO_2 and Halon system cylinders.

!**********
NOTE TO SPECIFICATION WRITER: The MO-117 requires other periodic testing, such as a 12 year test of dry chemical containers. The user should add these tests if appropriate and indicate the specific option period(s) of the contract during which they will be performed, or simply have the work performed by means other than this contract.
**********!

C.16 SPECIFIC REQUIREMENTS FOR DRY AND WET CHEMICAL EXTINGUISHING SYSTEMS. The Contractor shall inspect, maintain, and repair the dry and wet chemical extinguishing systems and equipment listed in Part E of Attachment J-C1 so that they are continuously maintained in complete, reliable, and safe operating condition as originally designed and intended. Wet and dry extinguishing systems shall be maintained up to and including cylinders, piping, hoses, detectors, and associated alarm systems. PM inspections shall be scheduled and conducted as specified in the "GENERAL REQUIREMENTS AND PROCEDURES FOR PREVENTIVE MAINTENANCE WORK" clause, and PM procedures shall conform to the requirements contained in Chapter 11 of the NAVFAC MO-117 and the recommendations of the equipment manufacturer. The following list summarizes the principal tests and inspections required.

a. Monthly

. Check nozzles and hand hose lines.

. Check for physical damage to system.

b. Semiannually

. Check dry chemical expellent gas cylinders.

. Check general condition of system.

c. Annually

. Conduct actuating and operating tests of systems.

. Check condition of agent.

. Hydrostatic test of cylinders and hoses that have evidence of corrosion, pitting, or other damage.

C.17 SPECIFIC REQUIREMENTS FOR SMOKE CONTROL SYSTEMS. The Contractor shall inspect, test, maintain, and repair the stairwell pressurization and zoned smoke control systems and equipment listed in Part F of Attachment J-C1 so that they are continuously maintained in complete, reliable, and safe operating condition as originally designed and intended. Smoke control systems shall be maintained up to and including the electrical connections back to the source of electricity, but not including the circuit breakers and disconnects. PM inspections shall be scheduled and conducted as specified in the "GENERAL REQUIREMENTS AND PROCEDURES FOR PREVENTIVE MAINTENANCE WORK" clause, and PM procedures shall conform to the requirements contained in Chapter 12 of the NAVFAC MO-117 and the recommendations of the equipment manufacturer. The following list summarizes the principal tests and inspections required.

a. Semiannually. All fans and dampers for smoke control systems shall be inspected, tested, and maintained in accordance with the manufacturer's recommendations. If changes have been made since the last inspection, fans, dampers, control devices, and operating sequences shall be checked by a complete operational test.

b. Annually. Each smoke control system device shall be activated by actuating an automatic fire alarm device. The fan and general smoke control system operation shall be checked. Inspection of the operation of smoke dampers shall include verification of movement of the damper to the appropriate position as well as operation of the associated motor. Check adequacy of power supplies.

!**********

NOTE TO SPECIFICATION WRITER: The NAVFAC Uniform Contract Format Guide (UCFG) specifies a number of additional clauses which may be included in Section C, including the following: Performance Evaluation Meetings, Insurance, Directives, Station Regulations, Fire Protection, Environmental Protection, Disposal, Safety Requirements and Reports, Security Requirements, Passes and Badges, Access to Buildings, Contractor Employees, Identification of Contractor Employees, Identification of Contractor Vehicles, Permits, Technical Library.

Since these clauses are subject to change and are readily available in the UCFG, they have not been included in this GPWS.
**********!

END OF SECTION C

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

SECTION J: LIST OF ATTACHMENTS

!**********
NOTE TO SPECIFICATION WRITER: The numbering system used below is designed so that the number of the Attachment refers back to the Section that it supports. Attachment J-C1 supports Section C and is the first Attachment referenced in that Section. The user should include those Attachments marked "*", as required.
**********!

TABLE OF CONTENTS

ATTACHMENT J-1

DEPARTMENT OF LABOR WAGE DETERMINATION

!**********
NOTE TO SPECIFICATION WRITER: Choose one of the following.
**********!

Attached is Service Contract Act Wage Determination !INSERT NUMBER!. This determination specifies the minimum wages and fringe benefits to be paid under this contract.

A Service Contract Act Wage Determination has been requested from the Department of Labor and will be incorporated by amendment upon receipt.

ATTACHMENT J-C1

DESCRIPTION OF FIRE PROTECTION SYSTEMS

!**********
NOTE TO SPECIFICATION WRITER: It is very important that the inventory information provided in this attachment be complete and accurate. See User's Guide paragraph III.A.3 for additional information. Add other pertinent equipment information to the examples provided if needed to adequately describe each of the systems to be maintained by the Contractor.
**********!

The following fire protection systems and equipment shall be maintained and repaired by the Contractor as specified herein.

A. **FIRE ALARM SYSTEMS**

BUILDING	NAME/BRAND	NO. OF ZONES	TRANSMIT TO FIRE STATION	BATTERY	TYPE OF ALARM
116	Simplex	4	Yes	Dry (Recharge)	Pull Box & Detectors
224	Faraday	2	Yes	Dry (Recharge)	Pull Box & Flow Switches
295	Gamewell	3	Yes	Dry (Recharge)	Pull Box, Duct Detectors & Flow Switch
301 (Fire Station)	Gamewell Central Monitor Form 4 Switchboard	120	N/A	Dry (Recharge)	Tape Slasher Air Horn Bells

Telegraphic lines/cables:

Aerial - 13,000 linear feet
Buried - 12,000 linear feet

!ETC!

B. **AUTOMATIC SPRINKLER AND STANDPIPE SYSTEMS**

1. AUTOMATIC SPRINKLERS

BUILDING	TYPE	NUMBER	APPROXIMATE SQUARE FEET	MANUFACTURER
18	WET	1	123,000	Star
26	WET	1	50,000	Grinnel
44	WET	1	12,600	Auto Sprinkler
266	DRY	1	800	Star

!ETC!

2. FIRE PUMPS

BUILDING	PUMP MANUFACTURER	CAPACITY	NUMBER	POWER DRIVE
227	Fairbanks-Morse	1,000 GPM (each)	2	Cummins Diesel (Direct Drive)
308	Peerless	2,000 GPM (each)	3	Cummins Diesel (Direct Drive)

!ETC!

3. FIRE HYDRANTS

LOCATION	TYPE	MANUFACTURER	NUMBER
Base-Wide	Dry Barrel	Muellar	100
Dead-End	Dry Barrel	Muellar	20

!ETC!

C. **FOAM EXTINGUISHING SYSTEMS**

BUILDING	NO. OF TYPE	NO. OF SYSTEMS	TANKS & SIZE	APPROX. SF	MANUFACTURER
Hangar #2	AFFF	1	3 @ 1,500 Gals.	100,000	National Foam

!ETC!

D. **GASEOUS EXTINGUISHING SYSTEMS**

BUILDING	TYPE	NO. OF SYSTEMS	NO. OF TANKS & SIZE	APPROX. SF	MANUFACTURER
110 (Computer Rm)	Halon 1301	1	2 @ 28 lbs. each	2,000	Fenwal
116 (Computer Rm)	Halon 1301	1	2 @ 60 lbs. each	6,000	Ansul

!ETC!

E. **DRY AND WET CHEMICAL EXTINGUISHING SYSTEMS**

BUILDING	NUMBER OF SYSTEMS	NUMBER OF CYLINDERS & SIZE	MANUFACTURER/MODEL
308	1	1 @ 15 lbs.	Safety First/30A
367	2	2 @ 15 lbs.	Safety First/30A
342	1	1 @ 15 lbs.	Safety First/30A

!ETC!

F. **SMOKE CONTROL SYSTEMS**

BUILDING	TYPE	NUMBER
18	Stairwell Pressurization	2

!ETC!

ATTACHMENT J-C2

GOVERNMENT FURNISHED FACILITIES

!**********
NOTE TO SPECIFICATION WRITER: List all facilities that are to be provided to the Contractor. Provide descriptive characteristics and provide simple drawings of each facility showing Contractor areas, areas retained for use by the Government, etc.
**********!

The following facilities will be made available for use by the Contractor, as specified in the "GOVERNMENT FURNISHED PROPERTY AND SERVICES" clause, Section C.

BUILDING NUMBER/LOCATION	SQUARE FEET	DESCRIPTION
5/Naval Station	1,050	Office Space (2) - 600 SF
		Rest Room (1) - 100 SF
		Storage (1) - 350 SF
		TOTAL = 1,050 SF

!ETC!

ATTACHMENT J-C3

GOVERNMENT FURNISHED EQUIPMENT

!**********
NOTE TO SPECIFICATION WRITER: List all equipment that will be provided to the Contractor. Provide descriptive characteristics including manufacturer, model type, age, location, etc.
**********!

The following items of equipment will be made available for use by the Contractor, as specified in the "GOVERNMENT FURNISHED PROPERTY AND SERVICES" clause, Section C.

ITEM	MODEL NO.	BRAND NAME	AGE	LOCATION
Pipe Threading Machine	1822-I	Ridgid	10	Bldg. 5

!ETC!

ATTACHMENT J-C4

GOVERNMENT FURNISHED MATERIAL

!**********
NOTE TO SPECIFICATION WRITER: List all materials that are to be provided to the Contractor. Provide descriptive characteristics including generic name, federal or commercial specifications (if applicable), and quantities of issue. Indicate how it is to be provided to the Contractor, i.e., does he/she pick it up (where and when) or will the Government deliver it?
**********!

The following material will be made available for use by the Contractor, as specified in the "GOVERNMENT FURNISHED PROPERTY AND SERVICES" clause, Section C.

DESCRIPTION	TYPE	QUANTITY
Fire Hydrants	Dry Barrel (4")	10 each
Valves	Alarm Check (4")	15 each
Valves	Gate (3")	5 each
Valves	Gate (2")	15 each
Pipe	Galv. Steel (1")	210 linear feet

!ETC!

ATTACHMENT J-C5

CONTRACTOR FURNISHED MATERIAL

!**
NOTE TO SPECIFICATION WRITER: This attachment identifies quality standards for many of the materials the Contractor is responsible for providing. Add or delete items as required and make sure that dates of the specified standards are current. Quality standards may be specified using Federal or other specifications. NAVFAC EFDs (Code 04) have (or have access to) all Federal and Industry specifications available, and may be contacted for assistance.
**!

Materials provided by the Contractor shall comply with the following specifications and standards, as specified in the "CONTRACTOR FURNISHED ITEMS" clause, Section C.

1. American National Standards Institute, Inc. (ANSI)

ANSI B16.3	1985 Malleable Iron Threaded Fittings
ANSI B16.11	1991 Forged Steel Fittings, Socket-Welding Threaded
ANSI C80.1	1990 Rigid Steel Conduit, Zinc Coated
ANSI C80.3	1991 Electrical Metallic Tubing, Zinc Coated

2. American Society for Testing Materials (ASTM)

ASTM A53	1990 Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless
ASTM A106	1991 Seamless Carbon Steel Pipe for High-Temperature Service

3. American Water Works Association (AWWA)

AWWA C502-85	Dry-Barrel Fire Hydrants

4. Manufacturers Standardization Society of Valve and Fittings Industry (MSS)

MSS SP70	1990 Cast Iron Gate Valves, Flanged and Threaded Ends
MSS SP71	1990 Cast Iron Swing Check Valves, Flanged and Threaded Ends
MSS SP80	1987 Bronze Gate, Globe, Angle and Check Valves

5. National Association of Plumbing-Heating-Cooling Contractors (NAPHCC)

NAPHCC NSPC	National Standard Plumbing Code

6. National Electrical Manufacturers Association (NEMA)

NEMA WC3	1980 (R1988)(Rev. 1-5) Rubber-Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy
NEMA WC5	1973 (R1987)(Rev. 1-13) Thermoplastic-Insulated Wire and Cable for Transmission and Distribution of Electrical Energy

7. National Fire Protection Association (NFPA)

NFPA 12A-89	Halon 1301 Fire Extinguishing Systems
NFPA 13A-87	Inspection, Testing and Maintenance of Sprinkler Systems
NFPA 14A-89	Inspection, Testing and Maintenance of Standpipe and Hose Systems
NFPA 16-91	Installation of Deluge Foam-Water Sprinkler Systems and Foam-Water Spray Systems
NFPA 17-90	Dry Chemical Extinguishing Systems
NFPA 17A-90	Wet Chemical Extinguishing Systems
NFPA 70-90	National Electrical Code
NFPA 71-89	Installation, Maintenance and Use of Signalling Systems for Central Station Service
NFPA 291-88	Fire Flow Testing and Marking of Hydrants

8. Naval Facilities Engineering Command

NAVFAC MO-117	1989 Maintenance of Fire Protection Systems

9. Southern Building Code Congress International (SBCCI)

SBCCI SPC	Standard Plumbing Code

10. Underwriters Laboratories (UL)

UL 199	1990 Automatic Sprinklers for Fire-Protection Service

!ETC!

ATTACHMENT J-C6

LIST OF REQUIRED RECORDS AND REPORTS

!**********
NOTE TO SPECIFICATION WRITER: The format, frequency, and specific data to be recorded and reported by the Contractor should be tailored by the user in order to obtain the information considered pertinent for the equipment, to enable the activity to periodically monitor the Contractor's operations, and to enable the activity to complete and prepare required reports. Keep in mind that numerous reports and high frequency requirements cost more money. Reports should be minimized and formats designed to consolidate and provide the necessary information with minimal effort. Attach example forms, report formats, etc., so that the Contractor can get an accurate picture of the effort required in preparation.
**********!

The following records and reports shall be prepared, maintained, and submitted by the Contractor as specified in the "MANAGEMENT" clause, Section C.

1. **RECORDS**

SPECIFICATION REFERENCE	RECORD TITLE	WHEN SUBMITTED	SAMPLE ATTACHED
C.6.c	History Files	Contract Completion	No
C.10.c	Preventive Maintenance Inspection Record	Contract Completion	Yes
	!ETC!		

2. **REPORTS**

SPECIFICATION REFERENCE	REPORT TITLE	WHEN SUBMITTED	SAMPLE ATTACHED
C.10.b	Preventive Maintenance Completion Report	By !INSERT TIME! each Monday	No
	!ETC!		

ATTACHMENT J-C7

EMERGENCY/SERVICE WORK AUTHORIZATION FORM

!**********

NOTE TO SPECIFICATION WRITER: Include an Emergency/Service Work Authorization Form, NAVFAC ll0l4/2l (Rev. 6-75) or other user generated service call work authorization form.

**********!

ATTACHMENT J-C8

HISTORICAL DATA

!**********

NOTE TO SPECIFICATION WRITER: This attachment includes example formats for displaying historical data. **Accurate** and **complete** historical data is essential in the development of realistic Contractor bids. If complete information is not available, projections should be made based on the data that is available, and some system established to capture required historical information for future contracts.

When determining the number of calls of each classification be sure to consider the tailored service call and classification definitions in clause C.9, especially if definitions have been changed from previous contracts. If a CA program study is being conducted, data should be based on estimated versus actual hours so that the Government's most efficient organization will not be compromised.

**********!

The data in this attachment is taken from the activity's records for the fire protection systems to be maintained under this contract. It is not considered sufficiently accurate for bidding purposes by itself, but is included to indicate the types and approximate order of magnitude of the work.

CLASSIFICATION	NUMBER OF SERVICE CALLS 1990	1991
Emergency	68	80
Urgent	82	92
Routine	160	173

The various trades listed below were used in performing the service calls shown in the chart above. The percentage of the total number of service calls shown in which each trade was involved is given below. For example, electricians were involved in approximately 70% of the calls shown above. Some calls involved more than one trade.

TRADE/CRAFT	TRADE INVOLVEMENT
Electrical	70%
Plumbing/Pipefitting	30%
Labor	25%

The approximate percentages of emergency, urgent, and routine service calls received after regular working hours and on weekends/holidays are shown below:

CLASSIFICATION	PERCENTAGE OF CALLS RECEIVED AFTER REGULAR HOURS 1990	1991
Emergency	10%	12%
Urgent	6%	7%
Routine	2%	12%

The approximate percentages of service calls for various ranges of actual hours required for completion are given below:

ACTUAL HOURS REQUIRED FOR COMPLETION	PERCENTAGE OF CALLS BY YEAR 1990	1991
0 - 4 Hours	84%	80%
4 - 8 Hours	8%	10%
8 - 16 Hours	6%	7%
Over 16 Hours	2%	3%

ATTACHMENT J-E1

LIST OF ENGINEERED PERFORMANCE STANDARDS HANDBOOKS

PUBLICATION NUMBER	HANDBOOK NAME
P-701.0	Planner-Estimator’s Deskguide
P-702.0	Carpentry
P-703.0	Electrical, Electronic
P-704.0	Heating, Cooling & Ventilating
P-705.0	Service
P-706.0	Janitorial and Custodial Services
P-707.0	Machine Shop, Machine Repairs
P-708.0	Masonry
P-709.0	Moving, Rigging
P-710.0	Paint
P-711.0	Pipefitting, Plumbing
P-712.0	Roads, Grounds, Pest Control and Refuse Collection
P-713.0	Sheet Metal, Structural Iron, and Welding
P-714.0	Trackage
P-715.0	Wharfbuilding
P-716.0	Unit Price Standards (UPS)
P-717.0	Preventive/Recurring Maintenance

ATTACHMENT J-E2

PERFORMANCE REQUIREMENTS SUMMARY TABLE

!**********
NOTE TO SPECIFICATION WRITER: A PRS table is included in this attachment to comply with the requirements of NAVFAC MO-327. See paragraph III.E of the User's Guide for additional guidance.
**********!

1. The purpose of this attachment is to:

a. List the contract requirements and work requirements considered most critical to satisfactory contract performance (See PRS Column 1).

b. Summarize the standards of performance in the specification for each specified work requirement (See PRS Column 2).

c. Provide maximum allowable defect rates (MADRs) for each work requirement (See PRS Column 3). The MADR is the defect rate in a population of services above which the Contractor's quality control is considered unsatisfactory. The MADR does not represent a threshold above which payment deductions are taken. Deductions are taken for all defects (with credit for rework to the extent appropriate) irrespective of whether the MADR was exceeded or not.

d. Specify the percentage of contract requirement attributable to each listed work requirement (See PRS Column 4).

!**********
NOTE TO SPECIFICATION WRITER: The percentages in the WEIGHT column are used in conjunction with the Schedule of Deductions to calculate payment deductions for partially performed work. Example payment deduction calculations are shown in each of the sample quality assurance plans in the Quality Assurance Guide of this GPWS. The user should verify that the percentages shown are representative of the activity's requirements, and modify as required. The MADRs shown are suggested rates only.
**********!

PERFORMANCE REQUIREMENTS SUMMARY TABLE

	WORK REQUIREMENTS (Column 1)	STANDARDS OF PERFORMANCE (Column 2)	MAX ALLOW DEFECT RATE (Column 3)	WEIGHT (Column 4)
	1. CONTRACT REQUIREMENT: EMERGENCY SERVICE CALLS			
A.	Respond to calls within required time period	At job site within !INSERT TIME! with proper tools and equipment [Paragraph C.9.d(1)(a)]	2%	35% Item 1, Schedule of Deductions
B.	Complete work within required time period	Completed within requirements for urgent or routine call, if appropriate [Paragraph C.9.d(1)]	2%	10% Item 1, Schedule of Deductions
C.	Perform quality service call work*	Emergency condition arrested, work completed in conformance with quality standards, Section C	2%	45% Item 1, Schedule of Deductions
D.	Proper procedures followed	Work authorization completed and returned within one working day, properly classified after regular hours (Paragraph C.9.e)	2%	10% Item 1, Schedule of Deductions
	2. CONTRACT REQUIREMENT: URGENT SERVICE CALLS			
A.	Respond to calls within required time period	At job site within !INSERT TIME! (regular hours) or !INSERT TIME! (after hours) with proper tools/equipment [Paragraph C.9.d(1)(b)]	3%	20% Item 2, Schedule of Deductions
B.	Complete work within required time period	Prosecuted to completion and completed within !INSERT TIME! [Paragraph C.9.d(1)(b)]	3%	10% Item 2, Schedule of Deductions
C.	Perform quality service call work*	Work completed in conformance with quality standards, Section C	3%	60% Item 2, Schedule of Deductions
D.	Proper procedures followed	Work authorization completed and returned within one working day, properly classified after regular hours (Paragraph C.9.e)	3%	10% Item 2, Schedule of Deductions
	3. CONTRACT REQUIREMENT: ROUTINE SERVICE CALLS			
A.	Complete work within required time period	Work completed within !INSERT NUMBER! working days [Paragraph C.9.d(1)(c)]	5%	15% Item 3, Schedule of Deductions

	WORK REQUIREMENTS (Column 1)	STANDARDS OF PERFORMANCE (Column 2)	MAX ALLOW DEFECT RATE (Column 3)	WEIGHT (Column 4)
B.	Perform quality service call work*	Work completed in conformance with quality standards, Section C	5%	75% Item 3, Schedule of Deductions
C.	Proper procedures followed	Work authorization completed and returned within one working day, properly classified after regular hours (Paragraph C.9.e)	5%	10% Item 3, Schedule of Deductions
	4. CONTRACT REQUIREMENT: PREVENTIVE MAINTENANCE			
A.	Complete work within required time period	Work completed by date specified in approved PM schedule (Paragraph C.10.a)	3%	15% Items 4 - 11, Schedule of Deductions
B.	Perform quality work*	All inspections, tests, and check points completed; deficiencies corrected in conformance with quality standards, Section C	3%	75% Items 4 - 11, Schedule of Deductions
C.	PM properly documented	PM Inspection Record form updated/filed within two working days; completion indicated, deficiencies documented, and reports included with weekly PM report (Paragraphs C.6.c, C.10.b, and C.10.c)	3%	10% Items 4 - 11, Schedule of Deductions
	5. INDEFINITE QUANTITY WORK			
A.	Complete work within required time period	Work completed by specified date (Clause C.11)	5%	20% of Unit Prices, Contract Line Item 0002
B.	Perform quality work*	Quality standards, Section C	5%	80% of Unit Prices, Contract Line Item 0002

* Unsatisfactory performance of this work requirement will result in an unsatisfactory rating for the entire contract requirement.

ATTACHMENT J-G1

DELIVERY ORDER FORMS

A sample Delivery Order Form (DD Form 1155) is shown on the following page.

ORDER FOR SUPPLIES OR SERVICES

(Contractor must submit four copies of invoice.)

Form Approved
OMB No. 0704-0187

PAGE 1 OF

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0187), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR FORM TO EITHER OF THESE ADDRESSES.
SEND YOUR COMPLETED FORM TO THE PROCUREMENT OFFICIAL IDENTIFIED IN ITEM 6.

1. CONTRACT/PURCH ORDER NO.	2. DELIVERY ORDER NO.	3. DATE OF ORDER (YYMMDD)	4. REQUEST/PURCH REQUEST NO.	5. PRIORITY
				DO C

6. ISSUED BY	CODE	7. ADMINISTERED BY *(if other than 6)*	CODE	8. DELIVERY FOB
				(X) DEST ( ) OTHER *(See Schedule if other)*

9. CONTRACTOR	CODE	FACILITY CODE	10. DELIVER TO FOB POINT BY *(Date)* (YYMMDD)	11. MARK IF BUSINESS IS
NAME AND ADRESS			12. DISCOUNT TERMS	( ) SMALL ( ) SMALL DISADVANTAGED ( ) WOMEN-OWNED
			13. MAIL INVOICES TO	

14. SHIP TO	CODE	15. PAYMENT WILL BE MADE BY	CODE	**MARK ALL PACKAGES AND PAPERS WITH CONTRACT OR ORDER NUMBER**

16. TYPE OF ORDER			
	DELIVERY		This delivery order is issued on another Government order in accordance with and subject to terms and conditions of above numbered contract.
	PURCHASE		Reference your furnish the following on terms specified herein.
			ACCEPTANCE THE CONTRACTOR HEREBY ACCEPTS THE OFFER REPRESENTED BY THE NUMBERED PURCHASE ORDER AS IT MAY PREVIOUSLY HAVE BEEN OR IS NOW MODIFIED, SUBJECT TO ALL OF THE TERMS AND CONDITIONS SET FORTH, AND AGREES TO PERFORM THE SAME.

NAME OF CONTRACTOR	SIGNATURE	TYPED NAME AND TITLE	DATE SIGNED (YYMMDD)

☐ If this box is marked, supplier must sign **ACCEPTANCE** and return the following number of copies:

17. ACCOUNTING AND APPROPRIATION DATA/LOCAL USE

18. ITEM NO.	19. SCHEDULE OF SUPPLIES/SERVICES	20. QUANTITY ORDERED/ ACCEPTED	21. UNIT	22. UNIT PRICE	23. AMOUNT

* *If quantity accepted by the Government is same quantity ordered, indicate by X. If different, enter actual quantity accepted below quantity order and encircle.*	24. UNITED STATES OF AMERICA CONTRACTING/ORDERING OFFICER	25. TOTAL	
		29. DIFFERENCES	

26. QUANTITY IN COLUMN 20 HAS BEEN ☐ INSPECTED ☐ RECEIVED ☐ ACCEPTED, AND CONFORMS TO THE CONTRACT EXCEPT AS NOTED		27. SHIP NO.	28. D.O. VOUCHER NO.	30. INITIALS
DATE	SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE	( ) PARTIAL ( ) FINAL	32. PAID BY	33. AMOUNT VERIFIED CORRECT FOR
36. I certify this account is correct and proper for payment DATE	SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE	31. PAYMENT ( ) COMPLETE ( ) PARTIAL ( ) FINAL		34. CHECK NUMBER 35. BILL OF LADING NO.

37. RECEIVED AT	38. RECEIVED BY *(Print)*	39. DATE RECEIVED (YYMMDD)	40. TOTAL CONTAINERS	41. S/R ACCOUNT NUMBER	42. S/R VOUCHER NO.

DD Form 1155 *Previous editions are obsolete*

ATTACHMENT J-G2

INVOICING INSTRUCTIONS

!**********
NOTE TO SPECIFICATION WRITER: See the INVOICING INSTRUCTIONS clause in Section G. This attachment should include an example invoice form that includes the following:

1. Name and address of person at activity to receive the monthly invoice.

2. Back-up form showing work that is:

   . performed on a regular basis and is to be paid for monthly.

   . performed on an indefinite quantity basis that must be accompanied by copies of delivery orders, in accordance with the PROCEDURES FOR ISSUING ORDERS clause, Section G.

3. Contractor monthly submittal requirements:

   . work schedules

   . completed delivery orders

   . etc.

An example invoice is included on the next page.
**********!

The Contractor shall prepare and submit an invoice for payment similar to the form shown in this Attachment.

ATTACHMENT J-G2

COMPANY LETTERHEAD AND ADDRESS
(As it appears on the contract)

TO: !ACTIVITY NAME AND ADDRESS!

CONTRACT: !CONTRACT NUMBER AND TITLE!

ITEM 0001: MAINTENANCE OF FIRE PROTECTION SYSTEM SERVICES 1 Month @ $_____ = $_____

ITEM 0002: INDEFINITE QUANTITY WORK (AS AND IF REQUIRED)

DELIVERY ORDER NO.	AMOUNT
_____	$_____
_____	$_____
_____	$_____
_____	$_____
_____	$_____

SUB-TOTAL INDEFINITE QUANTITY WORK = $_____

TOTAL AMOUNT OF INVOICE = $_____

I CERTIFY THE ABOVE IS A TRUE BILL AND PAYMENT THEREFORE HAS NOT BEEN RECEIVED

_____ _____
SIGNATURE OF COMPANY OFFICIAL COMPANY OFFICIAL NAME/TITLE

Enclosures:
Completed Delivery Orders
Monthly Work Schedule for_____

ATTACHMENT J-H1

DIRECTIVES

!**********
NOTE TO SPECIFICATION WRITER: List all directives, regulations, manuals, instructions, and publications referred to herein. The following list is not all inclusive and must be tailored to fit the user's needs.
**********!

The directives and publications listed below shall be complied with by the Contractor in the performance of this contract.

1. Directives

a. Chief of Naval Operations

5090.1 Environmental Protection and Natural Resources

5530.14 Physical Security and Loss Prevention

b. Naval Air Station !INSERT NAME!

3140.2 Destructive Weather Bill

5530.2 Restricted Areas

5560.3 Motor Vehicle Registration

!ETC!

2. Publications	Title
EM-385-1-1	U.S. Army Corps of Engineers Manual: *SAFETY AND HEALTH REQUIREMENTS*
29 CFR 1910	Occupational Safety and Health Standards (General Industry), U.S. Department of Labor, OSHA Publications, 200 Constitution Avenue, N.W., Room S-1212, Washington, D.C. 20212. Telephone (202) 523-6138. Also available from OSHA Regional and Area Offices and from the Superintendent of Documents.

!ETC!

END OF SECTION J

QUALITY ASSURANCE GUIDE

GUIDE PERFORMANCE WORK STATEMENT FOR

MAINTENANCE OF

FIRE PROTECTION SYSTEMS

QUALITY ASSURANCE GUIDE
GUIDE PERFORMANCE WORK STATEMENT FOR
MAINTENANCE OF FIRE PROTECTION SYSTEMS

TABLE OF CONTENTS

QUALITY ASSURANCE GUIDE
GUIDE PERFORMANCE WORK STATEMENT FOR
MAINTENANCE OF FIRE PROTECTION SYSTEMS

I. INTRODUCTION. Quality assurance (QA) is a program undertaken by the Government to provide some measure of the quality of goods and services purchased from a Contractor. To accomplish this the Government, in this case the naval shore activity contracting for maintenance of fire protection systems services, must develop and implement a system that will ensure that the quantity and quality of the goods and services received comply with the requirements of the contract. This QA Guide is designed to assist the Facilities Support Contract Manager (FSCM) or other user in setting up the activity's QA program. The user is advised to refer to the NAVFAC manual MO-327, *Facility Support Contract Quality Management Manual* and the NAVFAC *Random Sampling for Extrapolated Deductions (RSED V3.2)* implementation guide for more detailed information on the development and implementation of a QA Program.

A. Overview. This Guide suggests specific methods for monitoring maintenance of fire protection systems services and provides sample QA Plans. These sample plans must be tailored concurrently with the tailoring of the GPWS to develop a unique QA program that fits the needs of the activity. The Guide is divided into five parts:

1. The Introduction presents an overview and gives information on Quality Assurance Evaluator (QAE) staffing and training.

2. QA Plan Development discusses special considerations that affect the way in which maintenance of fire protection systems services may be monitored, and suggests specific evaluation methods for each service included in this GPWS.

3. The sample QA plans include numerical examples, suggested evaluation work sheets, and sample monthly payment deduction forms for each service included in this GPWS. The payment deduction forms illustrate how to use the Performance Requirements Summary (PRS) Table and inspection results to calculate deductions from the Contractor's invoice. The sample plans provided must be tailored by the user to conform with the tailored PWS.

4. Contractor's Overall Performance discusses how to use the QAE's inspection results to make an overall evaluation of Contractor performance, and provides a sample monthly summary report format.

5. Contractor Submissions provides a sample checklist of required submittals that the Contractor must provide at specific times during the contract.

B. QAE Training. Personnel tasked with monitoring the Contractor's performance must have some experience in maintenance of fire protection systems and must be adequately trained in QA methods and procedures in order to effectively implement the activity's QA program.

1. NAVFAC P-68, *Contracting Manual*, requires all individuals assigned QAE duties to attend the QAE training course provided by each of the NAVFAC geographical Engineering Field Divisions (EFDs) within six months of their assignment, or have equivalent training as determined by the Contracting Officer. If this training has not been received, the activity should take

steps to have the QAE(s) attend the next available course and in the meantime should develop a local training program. EFD Code 10s/16s should be contacted for QAE training scheduling or assistance. Additional training may also be required to ensure that appropriate technical expertise is available to inspect maintenance and repair of fire protection systems services.

2. In addition to being intimately familiar with the requirements of the specification, QAEs must also contact the activity's Facilities Management Engineering Division and Fire Department, and familiarize themselves with the procedures which will be used to order work, how the QAE will be notified when work has been completed and is ready for inspection, how customer complaints will be handled, etc.

C. QAE Organization and Staffing

1. The NAVFAC P-318, *Organization and Functions for Public Works Departments* and NAVFAC P-68 discuss the responsibilities of the organizations and individuals responsible for the day-to-day administration of facilities support contracts. Ideally, QAEs should organizationally report to the FSCM or other individual in the activity's contract administration organization. However, in this case it may be more practical for QAEs to be appointed on a collateral duty basis from within the activity's Fire Department, especially if the number of systems included in the contract is small. Fire Department personnel check fire protection systems regularly as part of routine facility fire inspections, and are therefore knowledgeable of system operation and maintenance requirements.

2. Regardless of where QAE's are located organizationally, the most well developed QA program will not be effective if QAE staffing is inadequate. Ideally QAE staffing should be based on a pre-determined number of contract inspections (QA plans) and related work requirements rather than on the availability of QAEs. Once adequate QA plans have been developed, the user should perform a staffing analysis to determine the amount of QAE effort that will be required. This analysis involves determining the average time needed to complete each of the inspections required (sample size or quantity of work) by each plan including travel time requirements, time required to prepare monthly reports and perform other administrative duties, time to perform any nonsurveillance duties, (e.g. training, safety meetings, preparing contract modifications, making award fee determinations, etc.), etc. The NAVFAC EFDs have experience in conducting these staffing analyses and should be contacted if assistance is needed.

II. QUALITY ASSURANCE PLAN DEVELOPMENT. Ideally, QA plan development should be accomplished concurrently with development of the PWS, and viewed as a single process. The two are closely interrelated since one (the PWS) defines required work outputs and quality standards while the other defines how work outputs will be observed and measured. Many of the inspection problems which tend to turn up after contract award can be avoided by careful up-front coordination between the specification and QA plan writers. Chapters 4 and 6 of NAVFAC MO-327 discuss methods of surveillance, inspection documentation, development of QAE schedules, and other issues related to the development of QA plans. The following discussion provides information relating specifically to surveillance of maintenance of fire protection systems.

A. Functional Considerations. Monitoring maintenance of fire protection systems services poses several unique requirements for the QAE. The following considerations are offered for the user's information.

1. Since it is difficult or impossible in many instances to determine if some services have actually been performed when inspecting after the fact, the QAE may find it necessary to actually observe the work as it is being accomplished. Many PM inspections and tests will fall into this category.

2. Customer Complaint Program. A properly established and administered customer complaint program can be of great benefit to the QAE in identifying poorly performed work and reducing the number of multiple service calls ordered to correct the same problem. The two major potential sources of customer complaints related to maintenance of fire protection systems are building managers and the activity Fire Department, assuming the QAE is not assigned from that Department. Fire Department personnel routinely inspect activity facilities for fire prevention problems, and generally have some inherent knowledge of the systems being maintained under the contract.

a. The method of making building managers and Fire Department personnel aware of the contract's requirements and how they actually go about reporting complaints; and the internal procedures used to receive, record, respond to, and track customer complaints need to be carefully established and disseminated prior to contract award. Each service call received by the activity's work reception center should be screened to ensure it is not a repeat call for a repair previously completed by the Contractor, which is still under warranty. Such calls are complaints, even if not identified as such by the caller, and should be passed to the QAE for validation and rework if appropriate.

b. A Customer Complaint form, similar to that contained in Appendix H of NAVFAC MO-327, should be used to record actions taken on each complaint received. For some complaints the complainer may simply be told to call back if the Contractor has not satisfactorily completed the work by a given time and date, but most complaints will require an on-site validation visit by the QAE. Adequate QAE time must be made available to validate complaints, or both building managers and Fire Department personnel will soon perceive that complaining is a "waste of time". Of course, payment deductions may be made only on those complaints which are validated by the QAE.

3. Rework. As specified in the "CONSEQUENCES OF CONTRACTOR'S FAILURE TO PERFORM REQUIRED SERVICES" clause in Section E, the Government may require the Contractor to reperform work that has been identified as being poorly performed or not performed, provided a reasonable amount of time is allowed for the rework to be completed. The following should be considered.

a. The QAE will be too busy performing surveillance during most of the day to stop and call the Contractor every time a deficiency is found or a complaint is received. Therefore, the Contractor should be notified of customer complaints and discrepancies found by the QAE only at the end of the working day, unless the deficiency could affect the health, safety, or comfort of the building occupants; has the potential to damage Government property; and cannot wait until the next work day for correction. The easiest way to make the Contractor aware of all noted deficiencies in writing, as required by the "CONSEQUENCES" clause, is to provide copies of completed "EVALUATION WORK SHEETS". As documentation that work sheets were received, the Contractor may

be asked to sign and return each form. However, the QAE should not spend time "chasing down" the Contractor's representative to get work sheets signed.

b. Rework should normally be allowed for defects in quality of work; however, defects in some work requirements, such as timely response and timely completion, obviously cannot be reworked.

c. Invoice payment deductions should be made when a documented deficiency is not satisfactorily reworked. Liquidated damages should be deducted for all documented deficiencies, whether or not rework is accomplished.

B. Selection of Methods of Surveillance. Chapter 4 of NAVFAC MO-327 provides a general discussion of the five methods of surveillance available and the factors that influence which method(s) should be selected for use. The factors influencing the selection of a method of surveillance for a given service include the number (population) of items to be inspected; the importance, characteristics, and location of the service; and the availability of QAE resources. Specific factors which influence the selection of evaluation methods for maintenance of fire protection systems services are discussed below for each method of surveillance.

1. 100% Inspection. One hundred percent inspection is generally used for those services which are considered very important, those which have relatively small monthly populations, and those included in the indefinite quantity portion of the contract. One hundred percent inspection is recommended for the inspection of emergency service calls since the number of such calls will normally be small, and since proper performance of these calls can sometimes be a matter of life and death.

2. Random Sampling. Surveillance based on random sampling evaluates a portion of the work, accurately estimating Contractor performance through the use of statistical theory. Random sampling is most useful on large homogeneous populations where 100% inspection is not required or feasible. Also, if appropriate provisions are included in the specification and the random sampling is properly conducted, the percentage of defective work items found in the sample (less a small adjustment for inaccuracies) may be extrapolated and deducted from the Contractor's payment invoice. Details on the use of random sampling for extrapolated deductions (RSED) may be found in the NAVFAC RSED (V3.2) implementation guide. Random sampling is not recommended for use in this GPWS since the population of any particular contract requirement will probably not be large enough for it to be practical.

3. Planned Sampling. Planned sampling is similar to random sampling in that it is based on evaluating a portion of the work as the basis for evaluating the Contractor's performance. Samples are selected based on a subjective rationale and the sample size is arbitrarily determined. Planned sampling is useful when population sizes are not large enough or homogeneous enough to make random sampling practical. Planned sampling is recommended for the inspection of urgent and routine service calls, and preventive maintenance inspection services since populations will likely be too large to make 100% inspection practical. Users with few fire protection systems may want to consider 100% inspection for these services, particularly for infrequently performed services, such as annual PM inspections.

4. Unscheduled Inspections. An unscheduled inspection is what the name implies. Since it does not provide any measure of the Contractor's performance it should be used only to support other methods and never as a primary method of surveillance.

5. Validated Customer Complaints. Customer complaints, primarily through the use of building managers and the Fire Department, is a good supportive surveillance method. Properly trained, building managers and Fire Department personnel can provide quick response on reporting poor response/completion or nonperformance of service call work to the QAE. Customer complaints will work well only if the QAE/FSCM provides customers with a controlled and clear means of reporting discrepancies. Validated customer complaints are recommended as a supportive method of surveillance for urgent and routine service calls.

C. Performance Requirements Summary. As discussed previously in the User's Guide (paragraph III.E), the PRS table will be used primarily by the Contracting Officer in conjunction with the "CONSEQUENCES OF CONTRACTOR'S FAILURE TO PERFORM REQUIRED SERVICES", "ESTIMATING THE PRICE OF NONPERFORMED OR UNSATISFACTORY WORK", and "SCHEDULE OF DEDUCTIONS" clauses, in making payment deductions for unsatisfactory performance or nonperformance of contract requirements. The table is also very useful in the preparation of QA plans since it summarizes the work requirements, standards of performance, and maximum allowable defect rates (MADRs) for each contract requirement. A sample PRS table, which reflects the contract requirements and work requirements of this GPWS, is provided in Attachment J-E2. Of course this table must be modified to reflect the requirements of the tailored PWS. NAVFAC MO-327 and the NAVFAC RSED (V3.2) implementation guide provide guidance on the development of PRS tables, and should be referred to by the user.

1. MADRs are defect rates above which the Contractor's quality control is considered unsatisfactory for any particular work requirement. The MADR selected for any particular work requirement should reflect both the expected population of services and the requirement's importance. For example, the MADR for timely emergency service call response should be smaller than that for routine service call response. Note that MADRs do not affect sample sizes or the method of calculating payment deductions in any way. Suggested values are included in Attachment J-E2; however, these must be tailored by the user.

2. In the "WEIGHT" column the price of each work requirement is specified as a percentage of the price of the contract requirement with which it is associated. Careful consideration must be given to objectively assigning these percentages since they will be used in making payment deductions. One method which may be used is to calculate the cost of each work requirement using Engineered Performance Standards (EPS) and then use these costs to determine the percentage to be assigned to each work requirement. Values for timeliness work requirements will be the most difficult to determine since they are by nature subjective. The percentages suggested in Attachment J-E2 should be carefully reviewed and tailored by the user.

III. SAMPLE QUALITY ASSURANCE PLANS. There are five sample QA plans provided in this GPWS. They are:

QA Plan #1 - Emergency Service Calls
QA Plan #2 - Urgent Service Calls
QA Plan #3 - Routine Service Calls

QA Plan #4 - Preventive Maintenance
QA Plan #5 - Indefinite Quantity Work

A. Of course, each sample QA plan must be tailored to reflect changes made by the user to Section C of the GPWS and the PRS table, and changes in methods of surveillance, evaluation work sheets, etc. For example, if there are not many service calls expected at the activity, the user may want to combine surveillance of all service calls into one QA plan.

B. Tailored QA plans should be self-contained documents written in sufficient detail to preclude extensive reference to other documents or manuals. Tailored plans should contain samples of all evaluation work sheets, summary reports, and other forms which will be used for documenting Contractor performance. Sample selection, evaluation, analysis of results, and other procedures should be as detailed as possible.

C. Sample size determinations, sampling procedures, and payment deduction calculations in the sample QA plans are based on manual methods. The user should be aware that computerized methods of performing these functions have been developed which greatly reduce the time and number of manual calculations required, especially when random sampling is selected as the method of surveillance. Although random sampling is not recommended for surveillance of fire protection systems maintenance services, some of these computer programs may still be helpful. Typically these computer programs will determine the sample size required for a given population of services to be randomly sampled, select the appropriate number of random numbers within a given range, summarize inspection results and perform associated payment calculations, perform random sampling confidence calculations, etc. Interested users should contact their geographical EFD for copies of this and other programs which may be available.

QUALITY ASSURANCE PLAN #1
EMERGENCY SERVICE CALLS

1. Contract Requirement. Emergency Service Calls

Work Requirements	Standards of Performance
a. Timely Response	At job site within !INSERT TIME! with proper tools/equipment [Paragraph C.9.d(1)(a)]
b. Timely Completion	Completed within requirements for urgent or routine call, if appropriate [Paragraph C.9.d(1)]
c. Quality Work	Emergency condition arrested, work completed in conformance with quality standards, Section C
d. Proper Procedures	Work authorization completed and returned within one working day, properly classified after regular hours (Paragraph C.9.e)

2. Primary Method of Surveillance. One hundred percent inspection

3. Maximum Allowable Defect Rate (MADR)

a. Timely Response	2%
b. Timely Completion	2%
c. Quality Work	2%
d. Proper Procedures	2%

4. Quantity of Work. Average by month:

JAN	3	APR	14	JUL	10	OCT	2
FEB	3	MAY	12	AUG	8	NOV	2
MAR	6	JUN	10	SEP	4	DEC	4

5. Level of Surveillance. Not Applicable

6. Sample Size. Not Applicable

7. Sampling Procedures. Not Applicable

8. Evaluation Procedures. As soon as possible after completion of each emergency service call and turn in of completed work authorization forms, the QAE will make an on-site visit and evaluate each of the work requirements listed in paragraph 1 as either satisfactory (S) or unsatisfactory (U) on the attached EVALUATION WORK SHEET. A brief description of any noted defects will be provided and rework information will be recorded, if appropriate. In most all instances where the quality of work is considered unsatisfactory, timely completion will also be considered unsatisfactory. Evaluate response, completion, and proper procedures based on completed work authorization and service call log information. Provide copies of all negative EVALUATION WORK

SHEETs to the Contractor. Rework will normally be allowed when practical, and must be completed by the Contractor within 24 hours of notification. Therefore, each call marked for rework must be reinspected by the QAE to see if the work was satisfactorily completed, and appropriate notations completed on the EVALUATION WORK SHEET.

9. Analysis of Results. At the end of the month the QAE will summarize the results of the month's inspections and calculate observed defect rates (ODRs) and recommended payment deductions for each work requirement on a MONTHLY PAYMENT DEDUCTION FORM. An example MONTHLY PAYMENT DEDUCTION FORM is attached.

a. If the ODR for a work requirement (Item F of the MONTHLY PAYMENT DEDUCTION FORM) is equal to or less than its MADR, overall performance of that requirement is satisfactory. Payment deductions will be made for all documented defects, as calculated on the MONTHLY PAYMENT DEDUCTION FORM. If the ODR is less than ½ of the MADR, the QAE should recommend to the FSCM to notify the Contractor that performance is excellent and to keep up the good work.

b. If the ODR for a work requirement is greater than its MADR, performance of that requirement is unsatisfactory and the QAE should recommend to the FSCM that a CDR be issued to the Contractor, or that stronger action be taken. Payment deductions will be made as calculated on the MONTHLY PAYMENT DEDUCTION FORM.

EVALUATION WORK SHEET
FOR EMERGENCY SERVICE CALLS

CONTRACT NUMBER_____

DATE	WORK AUTH NUMBER	BUILDING NUMBER	WORK DESCRIPTION	WORK REQUIREMENTS				REWORK ORDERED DATE/TIME	REWORK COMPLETED DATE/TIME	REMARKS
				TIMELY RESPONSE	TIMELY COMPLETION	QUALITY WORK	PROPER PROCEDURES			

_____ _____

CONTRACTOR'S SIGNATURE/DATE QAE'S SIGNATURE/DATE

EXAMPLE

MONTHLY PAYMENT DEDUCTION FORM
EMERGENCY SERVICE CALLS

Contract Number:_____

	SUMMARY FOR THE PERIOD 1 MAY 92 - 31 MAY 92	TIMELY RESPOND	TIMELY COMPLETE	QUALITY WORK	PROPER PROCEED
A.	Relative Value of Services (from PRS)	35%	10%	45%	10%
B.	Cost of Services (Schedule of Deductions Item 1 x A ÷ 100)	$ 420.00	$ 120.00	$ 540.00	$120.00
C.	Actual Number of Calls Completed	12	12	12	12
D.	Cost per Call (B ÷ C)	$ 35.00	$ 10.00	$ 45.00	$ 10.00
E.	Number of Observed Unsat Calls	1	1	1	1
F.	Observed Defect Rate (ODR) (E ÷ C x 100)	8.3%	8.3%	8.3%	8.3%
G.	Value of Unsat Performed Work (D x E)	$ 35.00	$ 10.00	$ 45.00	$ 10.00
H.	Deduct for Liquidated Damages (G x .1)	$ 3.50	$ 1.00	$ 4.50	$ 1.00
I.	Number of Calls Reworked	N/A	N/A	1	1
J.	Payment for Rework (D x I)	N/A	N/A	$ 45.00	$ 10.00
K.	Other Adjustments (" - " indicates a deduction)	$ 0	$ 0	$ 0	$ 0
L.	Total Deductions (G + H - J + K)	$ 38.50	$ 11.00	$ 4.50	$ 1.00

TOTAL PAYMENT DEDUCTIONS = $ 55.00

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AUTHORIZED SIGNATURE/DATE

QUALITY ASSURANCE PLAN #2
URGENT SERVICE CALLS

1. Contract Requirement. Urgent Service Calls

Work Requirements	Standards of Performance
a. Timely Response	At job site within !INSERT TIME! (regular hours) or !INSERT TIME! (after hours) with proper tools/equipment (Paragraph C.9.d(1)(b)]
b. Timely Completion	Prosecuted to completion and completed within !INSERT TIME! (Paragraph C.9.d(1)(b)]
c. Quality Work	Work completed in conformance with quality standards, Section C
d. Proper Procedures	Work authorization completed and returned within 1 working day, classified after regular hours (Paragraph C.9.e)

2. Primary Method of Surveillance. Planned sampling supported by unscheduled inspections and validated customer complaints.

3. Maximum Allowable Defect Rate (MADR)

a. Timely Response	3%
b. Timely Completion	3%
c. Quality Work	3%
d. Proper Procedures	3%

4. Quantity of Work. Average by month:

JAN	4	APR	14	JUL	12	OCT	2
FEB	4	MAY	14	AUG	10	NOV	2
MAR	6	JUN	12	SEP	8	DEC	4

5. Level of Surveillance. The normal level of surveillance will be used initially for the contract. Go to increased surveillance if the observed defect rate (ODR) for response or quality of work exceeds the MADR during any given month. If only the ODR for completion or procedures exceeds the MADR, consider increasing the level of surveillance for those work requirements only. Go to reduced surveillance if the ODRs for both response and quality of work are less than the MADR for two consecutive months. If at reduced surveillance the ODR for response or quality of work exceeds the MADR during the month, return to normal surveillance the next month.

6. Sample Size. The following sample sizes are established for each level of surveillance.

Reduced - 25% of the calls completed
Normal - 50% of the calls completed
Increased - 75% of the calls completed

7. Sampling Procedures. As completed urgent service call work authorization forms are turned in by the Contractor, the QAE will arbitrarily select every other work authorization form (if at normal surveillance) for inspection. Choose every fourth call if at reduced surveillance, and three out of every four calls if at increased surveillance.

8. Evaluation Procedures. As soon as possible after the call has been selected the QAE will make an on-site visit and evaluate each of the work requirements listed in paragraph 1 as either satisfactory (S) or unsatisfactory (U) on the attached EVALUATION WORK SHEET. A brief description of any noted defects will be provided and rework information will be recorded, if appropriate. In most all instances when the quality of work is considered unsatisfactory, timely completion will also be considered unsatisfactory. Visiting the site as soon as possible after completion of the work is very important so that the work is "fresh" and relatively easy to inspect. Evaluate response, completion, and proper procedures based on completed work authorization and service call log information. Provide copies of all negative EVALUATION WORK SHEETs to the Contractor.

a. Customer Complaints. The QAE will validate each customer complaint received on the standard customer complaint form. Normally site visits will be required to validate complaints.

b. Unscheduled Inspections. Unscheduled inspections may be conducted on any urgent service call, but should be limited to those of particular importance, areas where performance problems have been noted in the past, etc. Unscheduled inspections should be documented on a separate EVALUATION WORK SHEET from that used for planned sampling.

c. Rework. Rework will normally be allowed when practical, and must be completed by the Contractor within 24 hours of notification. Therefore, each call marked for rework must be reinspected by the QAE to see if the work was satisfactorily completed, and appropriate notations completed on the EVALUATION WORK SHEET.

9. Analysis of Results. At the end of the month the QAE will summarize the results of the month’s inspections, calculate ODRs and recommended payment deductions for each work requirement on a MONTHLY PAYMENT DEDUCTION FORM, and determine if any change in the level of surveillance is needed for the coming evaluation period. An example MONTHLY PAYMENT DEDUCTION FORM is attached.

a. If the ODR for a work requirement (Item G of the MONTHLY PAYMENT DEDUCTION FORM) is equal to or less than its MADR, overall performance of that requirement is satisfactory. If the ODR is less than ½ of the MADR, the QAE should recommend to the FSCM to notify the Contractor that performance is excellent and to keep up the good work. Consider whether or not reduced surveillance should be used for the coming evaluation period (see paragraph 5 above). Payment deductions will be made for all documented defects, as calculated on the MONTHLY PAYMENT DEDUCTION FORM.

b. If the ODR for a work requirement is greater than the MADR, performance of that requirement is unsatisfactory and the QAE should recommend to the FSCM that a CDR be issued to the Contractor, or that stronger action be taken. Consider whether or not increased surveillance should be used for the coming

evaluation period. Payment deductions will be made as calculated on the MONTHLY PAYMENT DEDUCTION FORM.

EVALUATION WORK SHEET
FOR URGENT SERVICE CALLS

CONTRACT NUMBER_____

DATE	WORK AUTH NUMBER	BUILDING NUMBER	WORK DESCRIPTION	WORK REQUIREMENTS				REWORK ORDERED DATE/TIME	REWORK COMPLETED DATE/TIME	REMARKS
				TIMELY RESPONSE	TIMELY COMPLETION	QUALITY WORK	PROPER PROCEDURES			

_____
CONTRACTOR'S SIGNATURE/DATE

_____
QAE'S SIGNATURE/DATE

EXAMPLE

MONTHLY PAYMENT DEDUCTION FORM
URGENT SERVICE CALLS

Contract Number:_____

	SUMMARY FOR THE PERIOD 1 MAY 92 - 31 MAY 92	TIMELY RESPOND	TIMELY COMPLETE	QUALITY WORK	PROPER PROCEED
A.	Relative Value of Services (from PRS)	20%	10%	60%	10%
B.	Cost of Services (Schedule of Deductions Item 2 x A ÷ 100)	$ 252.00	$ 126.00	$ 756.00	$126.00
C.	Actual Number of Calls Completed	14	14	14	14
D.	Cost per Call (B ÷ C)	$ 18.00	$ 9.00	$ 54.00	$ 9.00
E.	Sample Size (SS)	4	4	4	4
F.	Number of Observed Sampled Unsat Calls	1	1	0	0
G.	Observed Defect Rate (ODR) (F ÷ E x 100)	25.0%	25.0%	0%	0%
H.	Validated Customer Complaints (# Unsat)	0	0	0	0
I.	Unscheduled Inspections (# Unsat)	0	0	0	0
J.	Value of Unsat Performed Work [(F + H + I) x D]	$ 18.00	$ 9.00	$ 0	$ 0
K.	Deduct for Liquidated Damages (J x .1)	$ 1.80	$ .90	$ 0	$ 0
L.	Number of Calls Reworked				
	(1) Sampled Calls	N/A	N/A	0	0
	(2) Customer Complaints	N/A	N/A	0	0
	(3) Unscheduled Inspections	N/A	N/A	0	0
M.	Payment for Rework [L(1) + L(2) + L(3)] x D	N/A	N/A	$ 0	$ 0
N.	Other Adjustments (" - " indicates a deduction)	$ 0	$ 0	$ 0	$ 0
O.	Total Deductions (J + K - M + N)	$ 19.80	$ 9.90	$ 0	$ 0

TOTAL PAYMENT DEDUCTIONS = $ 29.70

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AUTHORIZED SIGNATURE/DATE

QUALITY ASSURANCE PLAN #3
ROUTINE SERVICE CALLS

1. Contract Requirement. Routine Service Calls

Work Requirements	Standards of Performance
a. Timely Response	Work completed within !INSERT NUMBER! working days [Paragraph C.9.d(1)(c)]
b. Quality Work	Work completed in conformance with quality standards, Section C
c. Proper Procedures	Work authorization completed and returned within one working day, properly classified after regular hours (Paragraph C.9.e)

2. Primary Method of Surveillance. Planned sampling supported by unscheduled inspections and validated customer complaints.

3. Maximum Allowable Defect Rate (MADR)

a. Timely Response	5%
b. Quality Work	5%
c. Proper Procedures	5%

4. Quantity of Work. Average by month:

JAN	10	APR	23	JUL	17	OCT	8
FEB	11	MAY	24	AUG	18	NOV	8
MAR	10	JUN	19	SEP	15	DEC	10

5. Level of Surveillance. The normal level of surveillance will be used initially for the contract. Go to increased surveillance if the observed defect rate (ODR) for timely completion or quality of work exceeds the MADR during any given month. If only the ODR for proper procedures exceeds the MADR, consider increasing the level of surveillance for that work requirement only. Go to reduced surveillance if the ODRs for both timely completion and quality of work are less than the MADR for two consecutive months. If at reduced surveillance the ODR for timely completion or quality of work exceeds the MADR during the month, return to normal surveillance the next month.

6. Sample Size. The following sample sizes are established for each level of surveillance.

Reduced - 10% of the calls completed
Normal - 25% of the calls completed
Increased - 50% of the calls completed

7. Sampling Procedures. As completed routine service call work authorization forms are turned in by the Contractor, the QAE will arbitrarily select every fourth work authorization form (if at normal surveillance) for inspection. Choose every tenth call if at reduced surveillance, every other call if at increased surveillance.

8. Evaluation Procedures. As soon as possible after the call has been selected the QAE will make an on-site visit and evaluate each of the work requirements listed in paragraph 1 as either satisfactory (S) or unsatisfactory (U) on the attached EVALUATION WORK SHEET. A brief description of any noted defects will be provided and rework information will be recorded, if appropriate. In most all instances when the quality of work is considered unsatisfactory, timely completion will also be considered unsatisfactory. Visiting the site as soon as possible after completion of the work is very important so that the work is "fresh" and relatively easy to inspect. Evaluate timeliness and proper procedures based on completed work authorization and service call log information. Provide copies of all negative EVALUATION WORK SHEETs to the Contractor.

a. Customer Complaints. The QAE will validate each customer complaint received on the standard customer complaint form. Normally site visits will be required to validate complaints.

b. Unscheduled Inspections. Unscheduled inspections may be conducted on any routine service call, but should be limited to those of particular importance, areas where performance problems have been noted in the past, etc. Unscheduled inspections should be documented on a separate EVALUATION WORK SHEET from that used for planned sampling.

c. Rework. Rework will normally be allowed when practical, and must be completed by the Contractor within 24 hours of notification. Therefore, each call marked for rework must be reinspected by the QAE to see if the work was satisfactorily completed, and appropriate notations completed on the EVALUATION WORK SHEET.

9. Analysis of Results. At the end of the month the QAE will summarize the results of the month’s inspections, calculate ODRs and recommended payment deductions for each work requirement on a MONTHLY PAYMENT DEDUCTION FORM, and determine if any change in the level of surveillance is needed for the coming evaluation period. An example MONTHLY PAYMENT DEDUCTION FORM is attached.

a. If the ODR for a work requirement (Item G of the MONTHLY PAYMENT DEDUCTION FORM) is equal to or less than the MADR, performance of that requirement is satisfactory. If the ODR is less than ½ of the MADR, the QAE should recommend to the FSCM to notify the Contractor that performance is excellent and to keep up the good work. Consider whether or not reduced surveillance should be used for the coming evaluation period (see paragraph 5 above). Payment deductions will be made for all documented defects, as calculated on the MONTHLY PAYMENT DEDUCTION FORM.

b. If the ODR for a work requirement is greater than the MADR, performance of that requirement is unsatisfactory and the QAE should recommend to the FSCM that a CDR be issued to the Contractor, or that stronger action be taken. Consider whether or not increased surveillance should be used during the coming evaluation period. Payment deductions will be made as calculated on the MONTHLY PAYMENT DEDUCTION FORM.

EVALUATION WORK SHEET
FOR ROUTINE SERVICE CALLS

CONTRACT NUMBER_____

DATE	WORK AUTH NUMBER	BUILDING NUMBER	WORK DESCRIPTION	WORK REQUIREMENTS			REWORK ORDERED DATE/TIME	REWORK COMPLETED DATE/TIME	REMARKS
				TIMELY COMPLETION	QUALITY WORK	PROPER PROCEDURES			

_____ _____

CONTRACTOR'S SIGNATURE/DATE QAE'S SIGNATURE/DATE

EXAMPLE

MONTHLY PAYMENT DEDUCTION FORM
ROUTINE SERVICE CALLS

Contract Number:_____

	SUMMARY FOR THE PERIOD 1 MAY 92 - 31 MAY 92	TIMELY COMPLETION	QUALITY WORK	PROPER PROCEDURES
A.	Relative Value of Services (from PRS)	15%	75%	10%
B.	Cost of Services (Schedule of Deductions Item 3 x A ÷ 100)	$ 720.00	$3,600.00	$ 480.00
C.	Actual Number of Calls Completed	24	24	24
D.	Cost per Call (B ÷ C)	$ 30.00	$ 150.00	$ 20.00
E.	Sample Size (SS)	6	6	6
F.	Number of Sampled Observed Unsat Calls	2	1	2
G.	Observed Defect Rate (ODR) (F ÷ E x 100)	33.3%	16.7%	33.3%
H.	Validated Customer Complaints (# Unsat)	0	0	0
I.	Unscheduled Inspections (# Unsat)	0	0	0
J.	Value of Unsatisfactorily Performed Work [(F + H + I) x D]	$ 60.00	$ 150.00	$ 40.00
K.	Deduct for Liquidated Damages (J x .1)	$ 6.00	$ 15.00	$ 4.00
L.	Number of Calls Reworked			
	(1) Sampled Calls	N/A	1	2
	(2) Customer Complaints	N/A	0	0
	(3) Unscheduled Inspections	N/A	0	0
M.	Payment for Rework [L(1) + L(2) + L(3)] x D	$ 0	$ 150.00	$ 40.00
N.	Other Adjustments (" - " indicates a deduction)	$ 0	$ 0	$ 0
O.	Total Deductions (J + K - M + N)	$ 66.00	$ 15.00	$ 4.00

TOTAL PAYMENT DEDUCTIONS = $ 85.00

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AUTHORIZED SIGNATURE/DATE

QUALITY ASSURANCE PLAN #4
PREVENTIVE MAINTENANCE

1. Contract Requirement. Preventive Maintenance (PM)

Work Requirements	Standards of Performance
a. Timely Completion	Work completed by date specified in approved PM schedule (Paragraph C.10.a)
b. Quality Work	All inspections, tests, and check points completed; deficiencies corrected in conformance with quality standards, Section C
c. Proper Documentation	PM Inspection Record form updated/filed within two working days; completion indicated, deficiencies documented, and reports included in weekly PM report (Paragraphs C.6.c, C.10.b, and C.10.c)

2. Primary Method of Surveillance. Planned sampling supported by unscheduled inspections.

3. Maximum Allowable Defect Rate (MADR)

a. Timely Completion	3%
b. Quality Work	3%
c. Proper Documentation	3%

4. Quantity of Work. The quantity of work per month will vary and will equal the number of PM inspections scheduled by the Contractor.

5. Level of Surveillance. The normal level of surveillance will be used initially for the contract. Go to increased surveillance if the observed defect rate (ODR) for quality of work exceeds the MADR during any given month. If only the ODR for timely completion or work completion report exceeds the MADR, consider increasing the level of surveillance for these work requirements only. Go to reduced surveillance if the ODR for quality of work is less than the MADR for two consecutive months. If at reduced surveillance the ODR for quality of work exceeds the MADR during the month, return to normal surveillance the next month.

6. Sample Size. The following sample sizes are established for each level of surveillance.

Reduced - 10% of the calls completed
Normal - 25% of the calls completed
Increased - 50% of the calls completed

7. Sampling Procedure. The QAE will arbitrarily choose every fourth PM (if at normal surveillance) from the PMs scheduled to be completed. Choose every other PM if at increased surveillance, and every tenth PM if at reduced surveillance.

8. Evaluation Procedures. As soon as possible after each scheduled PM has been completed the QAE will make an on-site visit and evaluate the timely completion

and quality work requirements as either satisfactory (S) or unsatisfactory (U) on the attached EVALUATION WORK SHEET. A separate EVALUATION WORK SHEET will be filled out for each different PM performed during the month. For example, if semimonthly, monthly, and quarterly PM services are to be performed during the month, three EVALUATION WORK SHEETS will be required. A brief description of any noted defects will be provided and rework information, if appropriate, will be recorded. In most all instances when the quality of work is considered unsatisfactory, the other two work requirements will also be considered unsatisfactory. Visiting the site as soon as possible after completion of the work is very important so that the work is "fresh" and relatively easy to inspect. In some instances where the work is hard to inspect after the fact, or the system being PM'd is critical, inspections should be made while the PM work is in progress. PM Inspection Record forms and the weekly PM report will be reviewed for completeness and accuracy as the basis for grading the proper documentation work requirement. Provide copies of all negative inspection reports to the Contractor.

a. Unscheduled Inspections. Unscheduled inspections may be conducted on any PM inspection, but should be limited to those of particular importance, such as where equipment problems have been noted previously. Unscheduled inspections should be documented on separate EVALUATION WORK SHEETs from those used for planning sampling.

b. Rework. Rework will normally be allowed when practical, and must be completed by the Contractor within 24 hours of notification. Therefore, each inspection marked for rework must be reinspected by the QAE to see if the work was satisfactorily completed, and appropriate notations completed on the EVALUATION WORK SHEET.

9. Analysis of Results. At the end of the month the QAE will summarize the results of the month's inspections and calculate ODRs and recommended payment deductions for each work requirement.

a. Payment deductions will be calculated on a MONTHLY PAYMENT DEDUCTION FORM. A separate form will be filled out for each different PM service performed during the month, since there are separate prices for each service in the Schedule of Deductions. For example, if the Contractor performed monthly and quarterly PMs on fire alarm systems, and quarterly and annual PMs on sprinkler systems during the month, four MONTHLY PAYMENT DEDUCTION FORMs will be filled out. An example MONTHLY PAYMENT DEDUCTION FORM for monthly PM of fire alarm systems is attached.

b. ODRs will be calculated for each work requirement for the overall performance of PM by combining the inspection results from all PM MONTHLY PAYMENT DEDUCTION FORMs and using the following formula:

$$\text{ODR} = \frac{\text{Total Number of Defects Observed in Sampled PMs}}{\text{Total Number of PMs Sampled}}$$

(1) If the ODR for a work requirement is equal to or less than the MADR, the Contractor's overall performance of that requirement is satisfactory for the month. If the ODR is less than ½ of the MADR, the QAE should recommend to the FSCM to notify the Contractor that performance is excellent and to keep up the good work. Consider whether or not reduced surveillance should be used for the coming evaluation period (see paragraph 5 above).

(2) If the ODR for a work requirement is greater than the MADR, the Contractor’s overall performance of that requirement is unsatisfactory, and the QAE should recommend to the FSCM that a CDR be issued to the Contractor or that stronger action be taken. Increased surveillance should be used for the coming evaluation period.

EVALUATION WORK SHEET
PREVENTIVE MAINTENANCE

CONTRACT NUMBER_____

DATE	BUILDING NUMBER	WORK REQUIREMENTS			REWORK ORDERED DATE/TIME	REWORK COMPLETED DATE/TIME	REMARKS
		TIMELY COMPLETION	QUALITY WORK	PROPER DOCUMENTATION			

_____ _____

CONTRACTOR'S SIGNATURE/DATE QAE'S SIGNATURE/DATE

EXAMPLE

MONTHLY PAYMENT DEDUCTION FORM
PREVENTIVE MAINTENANCE

Contract Number: _____

Type of Services: Fire Alarm Systems - Monthly

	SUMMARY FOR THE PERIOD 1 MAY 92 - 31 MAY 92	TIMELY COMPLETION	QUALITY WORK	PROPER PROCEDURES
A.	Relative Value of Services (from PRS)	15%	75%	10%
B.	Cost per Service (Schedule of Deductions Item 4c x A ÷ 100)	$ 12.00	$ 60.00	$ 8.00
C.	Quantity Scheduled for Completion	60	60	60
D.	Sample Size (SS)	15	15	15
E.	Number of Observed Sampled Unsat Services	3	3	3
F.	Unscheduled Inspections (# Unsat)	1	1	1
G.	Value of Unsatisfactorily Performed Work [(E + F) x B]	$ 48.00	$ 240.00	$ 32.00
H.	Deduct for Liquidated Damages (G x .1)	$ 4.80	$ 24.00	$ 3.20
I.	Number of Services Reworked			
	(1) Sampled	N/A	3	3
	(2) Unscheduled Inspections	N/A	0	1
J.	Payment for Rework [I(1) + I(2)] x B	N/A	$ 180.00	$ 32.00
K.	Other Adjustments (" - " indicates a deduction)	$ 0	$ 0	$ 0
L.	Total Deductions (G + H - J + K)	$ 52.80	$ 84.00	$ 3.20

TOTAL PAYMENT DEDUCTIONS = $ 140.00

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AUTHORIZED SIGNATURE/DATE

QUALITY ASSURANCE PLAN #5
INDEFINITE QUANTITY WORK

1. Contract Requirement. Indefinite Quantity Work

Work Requirements	Standards of Performance
a. Timely Completion	Work completed by specified date (Paragraph C.11)
b. Quality Work	Quality standards, Section C

2. Primary Method of Surveillance. One hundred percent inspection

3. Maximum Allowable Defect Rate (MADR)

a. Timely Completion	3%
b. Quality Work	3%

4. Quantity of Work. Estimate of six delivery orders issued for indefinite quantity work per month.

5. Level of Surveillance. Not Applicable

6. Sample Size. Not Applicable

7. Sampling Procedures. Not Applicable

8. Evaluation Procedures. The QAE will evaluate the Contractor's performance at least once for each delivery order issued. A number of inspections may be required to adequately evaluate some delivery orders, especially those with multiple work items and key work phases. A final inspection will be made as soon as possible after notification by the Contractor that work on a delivery order is complete, and not later than the workday following scheduled work completion. The quality of work will be evaluated at each inspection, and a brief but complete description of any noted defects will be recorded on the attached EVALUATION WORK SHEET. A separate EVALUATION WORK SHEET will be filled out for each delivery order. At the final inspection, final grades will be assigned for both work requirements for the Contractor's overall performance of the work in the delivery order.

a. Rework will normally be required. Record all appropriate rework information on the EVALUATION WORK SHEET.

b. When determining the overall quality of work grade to be assigned for each delivery order, the QAE must carefully consider the total scope of work required and subjectively judge whether it has been substantially completed by the Contractor without an inordinate amount of rework being required. Generally, the QAE should grade a delivery order satisfactory overall if there has been no willful departure from the contract, there is no omission of essential work, and essentially 95% or more of the total work has been completed without rework being required. If overall work quality for a delivery order is considered unsatisfactory, timeliness must also be considered unsatisfactory. The QAE should discuss questionable grades with the FSCM prior to providing the Contractor with a copy of the EVALUATION WORK SHEET.

9. Analysis of Results. At the end of the month the QAE will summarize the number of unsatisfactory overall grades for timeliness and quality of work, and calculate Observed Defect Rates (ODRs) for each using the following formula.

$$ODR = \frac{\text{Number of overall unsatisfactory grades}}{\text{Total number of delivery orders inspected}} \times 100$$

For example:

Number of overall unsatisfactory quality grades = 1
Number of delivery orders inspected = 6

ODR for quality work = 1 ÷ 6 x 100 = 16.7%

a. If the ODR for a work requirement is equal to or less than its MADR, overall performance of that requirement is satisfactory for the month. If the ODR is less than ½ of the MADR, the QAE should recommend to the FSCM to notify the Contractor that performance is excellent and to keep up the good work.

b. If the ODR is greater than the MADR, overall performance is unsatisfactory and the QAE should recommend to the FSCM that a CDR be issued to the Contractor, or that stronger action be taken.

c. Payment deductions, if any, will be calculated using Engineered Performance Standards or other appropriate estimating source, and subtracted from each indefinite quantity delivery order invoiced by the Contractor.

EVALUATION WORK SHEET
FOR INDEFINITE QUANTITY WORK

CONTRACT NUMBER:_____ DELIVERY ORDER NUMBER:_____

JOB TITLE:_____ LOCATION:_____

DATE/TIME	WORK REQUIREMENTS		REWORK ORDERED DATE/TIME	REWORK COMPLETED DATE/TIME	REMARKS
	TIMELY COMPLETION	QUALITY WORK			

OVERALL GRADE _____ _____

_____ _____

CONTRACTOR'S SIGNATURE/DATE QAE'S SIGNATURE/DATE

IV. CONTRACTOR'S OVERALL PERFORMANCE EVALUATION. NAVFAC MO-327 and the NAVFAC RSED (V3.2) implementation guide provide guidance in determining the Contractor's overall monthly performance for each service; how to use the PRS table and the QAE's inspection results to calculate the total payment due for each service; and how to correct problem areas of performance. This paragraph provides additional information on completion of the MONTHLY PAYMENT DEDUCTION FORMs included in each sample QA plan, and includes an example MONTHLY PERFORMANCE EVALUATION REPORT.

A. Monthly Payment Deduction Form. These forms are very useful for summarizing the results of each month's inspections and illustrate how the "CONSEQUENCES OF CONTRACTOR'S FAILURE TO PERFORM REQUIRED SERVICES" and "ESTIMATING THE PRICE OF NONPERFORMED OR UNSATISFACTORY WORK" clauses, the Schedule of Deductions, the PRS table, and the QAE's completed EVALUATION WORK SHEETs are all used in calculating the total payment due for each contract requirement. The format for these forms should be tailored by the user. Other example formats may be found in NAVFAC MO-327 and the NAVFAC RSED implementation guide. As previously mentioned, computer programs are available which will perform and document basically the same calculations.

B. Analysis of Results. The end result of the monthly inspection process is the overall evaluation of the Contractor's performance for the services inspected. Such an evaluation provides a summary of the Contractor's performance to the Contracting Officer, FSCM, QAE, Facilities Management Engineering Director, and the Contractor. Overall performance is important in determining whether to increase, decrease, or maintain surveillance at the same level; whether to issue one or more CDRs to the Contractor or take stronger administrative actions; and points out service areas which require greater QAE and Contractor QC emphasis during the coming evaluation period. Therefore, at the end of each month the QAE should complete and forward for the FSCM's approval a MONTHLY PERFORMANCE EVALUATION REPORT, in a format similar to that shown in Table 1. Almost all the information required to complete this summary can be taken directly from the MONTHLY PAYMENT DEDUCTION FORM included with each sample QA Plan.

C. Contract Discrepancy Report (CDR). When the Contractor's overall performance for any given work requirement is unsatisfactory, the QAE will recommend to the FSCM that a CDR be issued. Instructions on the use of CDRs, along with a typical format, are included in Chapter 6 of NAVFAC MO-327.

D. Recommended Payment Deductions. The QAE will recommend to the FSCM those payment deductions that should be made at the end of each month. All work documented as not in compliance with contract requirements (nonperformed or unsatisfactorily performed) is subject to payment deductions plus a 10% or 20% administrative cost (liquidated damages) in accordance with the provisions of the "CONSEQUENCES OF CONTRACTOR'S FAILURE TO PERFORM REQUIRED SERVICES", Section E. Since Government forces are normally not available, the Government will usually require the Contractor to reperform the work, and the 10% factor would be used. If reperformed by in-house forces or by separate contract the 20% factor would be used.

V. CONTRACTOR SUBMISSIONS. The QAE should prepare a list of Contractor submissions from the completed solicitation package. Required submissions should be listed chronologically by due date. The QAE should use this list to ensure that each submittal is turned in on schedule and is acceptable. An example contractor Submissions Work Sheet is included in Table 2.

TABLE 1

EXAMPLE MONTHLY PERFORMANCE EVALUATION REPORT

REPORT PERIOD:_____ CONTRACT:_____

	QUANTITY COMPLETED	MADR	ODR	CDR Y/N	PAYMENT DEDUCTIONS	RATING S/U
QA Plan #1						
EMERGENCY SERVICE CALLS						
Timely response (35%)		2%				
Timely completion (10%)		2%				
Quality work (45%)		2%				
Proper procedures (10%)		2%				
QA Plan #2						
URGENT SERVICE CALLS						
Timely response (20%)		3%				
Timely completion (10%)		3%				
Quality work (60%)		3%				
Proper procedures (10%)		3%				
QA Plan #3						
ROUTINE SERVICE CALLS						
Timely completion (15%)		5%				
Quality work (75%)		5%				
Proper procedures (10%)		5%				
QA Plan #4						
PREVENTIVE MAINTENANCE						
Timely completion (15%)		3%				
Quality work (75%)		3%				
Proper documentation (10%)		3%				
QA Plan #5						
INDEFINITE QUANTITY WORK						
Timely Completion (20%)		3%				
Quality work (80%)		3%				

TOTAL PAYMENT DEDUCTIONS = $_____

CONTRACTOR'S OVERALL PERFORMANCE FOR THE MONTH: SAT_____ UNSAT_____

QAE'S SIGNATURE_____ DATE_____

TABLE 2

EXAMPLE CONTRACTOR SUBMISSIONS WORK SHEET

RECEIVED	WHEN	WHAT	REFERENCE SECTION & PARAGRAPH
_____	With Bid	Bid Guarantee (if required)	I_____ L_____
_____	Prior to Award	Pre-Award Survey Data	M_____
_____	10 days after receiving forms	Performance and Payments Bonds (if required)	H_____ L_____
_____	15 days after award	Certificate of Insurance	H_____
_____	15 days after award	Contractor QC Plan	E_____
_____	15 days after award	Schedule of Deductions	E_____
_____	15 days after award	Initial Work Schedule	F_____
_____	15 calendar days prior to start	Proposed Schedule for Preventive Maintenance Inspections	C.10.a
_____	Prior to start	Preperformance Conference	F_____
_____	Prior to start applications	Employee/vehicle pass/badge	H_____
_____	Prior to start	Contractor’s Representative	H_____
_____	Prior to start	Licenses and Permits	H_____
_____	15 calendar days of request from Contracting Officer	Manufacturer’s Descriptive Data and Certifications	C.5.b
_____	!INSERT TIME! each Monday	Preventive Maintenance Completion Report	C.10.b
_____	Monthly	Payment Invoice	G_____
_____	5 days prior to the schedule period	Monthly Work Schedule	F_____

RECEIVED	WHEN	WHAT	REFERENCE SECTION & PARAGRAPH
_____	24 hours after completion	Copy of completed delivery order	G_____
_____	5 days after termination	Contractor QC Files	E_____
_____	5 days after termination	Records and Reports	C_____

END OF QUALITY ASSURANCE GUIDE